STUDIES IN SANSKRIT SYNTAX

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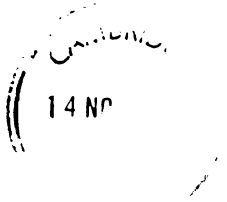
STUDIES IN SANSKRIT SYNTAX

A volume in honor of the centennial
of Speijer's Sanskrit Syntax
(1886-1986)

Edited by
HANS HENRICH HOCK



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For Zarina and Heinrich

धीतवीर्यवदज्ञानं विद्या तु सर्वकामधुक् ।
अधीतवीर्यतायै च विद्याधीता मनीषिभिः ॥

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Preface

The last several years have witnessed the publication centennials of two pioneering, comprehensive, and still widely read treatments of Sanskrit syntax, Speijer's *Sanskrit syntax* (1886) and Delbrück's *Altindische Syntax* (1888), which together cover the range of the Sanskrit language, from the sacred Vedas to the works of such literary giants as Aśvaghoṣa, Kālidāsa, and Vālmikī. Speijer and Delbrück's work on Sanskrit syntax had been preceded by that of other scholars. (Thus, Speijer makes repeated references to an early edition of Borooah's *Higher Sanskrit grammar*.) And their period experienced a veritable flood of publications on Sanskrit syntax, many of them monographs. (Most of these address issues of Vedic syntax and generally from a comparative Indo-European perspective.) Later studies have tended to be less comprehensive. Moreover, the period from the 1920s to the late 1960s saw a marked decrease in relevant publications, even though the flow of publications never came to a complete halt. (Note especially the many significant papers and monographs by Gonda, Oertel, Renou, and Sukumar Sen.) The post-1970 period, on the other hand, has been characterized by a significant increase in publications on Sanskrit syntax.

At the same time, present-day scholars for whom Sanskrit syntax is the major, or one of the major, areas of study are relatively few in number, only about ten to fifteen, distributed over a variety of different academic institutions, and scattered over at least seven different countries. (The largest number, at least five or six, are at United States universities.) Many of them divide their teaching and research between Sanskrit syntax and other areas, such as Indo-European or historical linguistics (perhaps the most common pattern); Sanskrit language, literature, or philosophy; history; or even pedagogy. As a consequence they tend to publish in very different journals, often not known or inaccessible to other students of Sanskrit syntax; and most of them attend very different professional meetings and thus have little chance for personal contact.

To provide a forum for scholars of Sanskrit syntax to meet with each other, present papers, and exchange views, I organized a 'Symposium on Sanskrit Syntax' at the Eighth South Asian Languages Analysis (SALA) Roundtable in Urbana, Illinois, 29-31 May 1986. The response to the invitations that I sent out was impressive, especially if one considers the fact that participants had to find their own travel support. Eight persons, from four different countries (the US, Canada, India, and Finland) attended and read papers, and a ninth sent a paper for presentation at the Symposium. This success led me to organize a 'Second Symposium on Sanskrit Syntax' at the Ninth SALA Roundtable in Ithaca and Syracuse, New York, 5-7 June 1987, which attracted seven active participants.

At the end of that Symposium, the participants agreed to make Sanskrit Syntax Symposia a regular feature of the annual SALA Roundtables; and at the 1988 Roundtable in Seattle, Washington, there were again seven active participants in the (Third) Sanskrit Syntax Symposium.

The present volume contains revised and edited versions of papers read at the first two Symposia. Their range in topics, in theoretical orientation, and in the chronological stages of Sanskrit covered, is in many ways representative and shows the wide variety of approaches open to persons interested in Sanskrit syntax. They cover such topics as word order, the interaction between phonology and syntax, and the syntactic use, behavior, and function of grammatical categories. They may approach their topic from a historical angle, relate it to the syntactic statements of the indigenous Indian tradition of Sanskrit grammar, attempt to place it in the larger context of the Indian convergence area, or address it from the point of view of modern syntactic theory. Many deal with the early, Vedic language, but the classical language is covered as well, as are the similarities and differences between Classical Sanskrit and the Prakrits. In addition the volume contains a contribution on the syntax of present-day spoken Sanskrit, an area that has been vastly underresearched and promises significant insights to those willing to work on it. The volume concludes with a cumulative list of bibliographical references, followed by a bibliography of writings on Sanskrit syntax which, though incomplete, is probably the most comprehensive of its kind.*

I and the other contributors to the volume hope that readers will find this collection of *Studies in Sanskrit Syntax* useful and interesting. We also hope that the volume will inspire readers who have not yet worked on the syntax of Sanskrit to begin such work themselves. In spite of the many earlier studies by scholars like Borooah, Speijer, and Delbrück, Gonda, Oertel, Renou, and Sen, the field of Sanskrit syntax still offers many areas that have received little or no attention, especially in the vast literature of the classical period. Finally, we hope that among those inspired to investigate Sanskrit syntax will be a significant number of Indians. Up to this point, the study of Sanskrit syntax has been dominated by western scholars, for whom, having grown up unfamiliar with the cultural, literary, and religious traditions that underlie Sanskrit texts, working with these texts is a formidable undertaking, although obviously not an impossible one. Indians, on the other hand, who have grown up imbued with their traditional culture, literature, and religion, have a built-in advantage and could thus more effectively take up the thorough study of Sanskrit texts that is required for meaningful syntactic research, especially in the rich and generally still underresearched literature of the classical period.

The first Sanskrit Syntax Symposium, held in 1986, a hundred years after Speijer's *Sanskrit syntax* first appeared, was dedicated as a memorial to that

*The volume has been produced on a Macintosh computer using Microsoft Word 3.01 and the fonts 'Times' (prepared by Apple, Inc.) and 'Lingam' = Linguistic American (developed by Hans Henrich Hock), and has been reproduced from copy printed out on an Apple Laserwriter.

publication and to its author. As is well known, Speijer's book was reissued in 1973 by Motilal Banarsidass. It is therefore appropriate to dedicate this volume, likewise published by Motilal Banarsidass, to the memory of Speijer and his *Sanskrit syntax*.

Finally, I have the pleasant task of thanking the contributors for participating in the Symposia and for consenting to having their papers included in this volume. I am grateful to the University of Illinois Research Board, Department of Linguistics, and Program in South and West Asian Studies for partial support toward completing this volume. Various units of the University of Illinois have contributed toward supporting the 1986 SALA Roundtable and the First Sanskrit Syntax Symposium. (These include the Department of Linguistics, the Program in Religious Studies, the School of Humanities, the College of Liberal Arts and Sciences, and the office of the Chancellor of the Urbana-Champaign Campus.) I also would like to thank two of my students: Steven Schäufele put papers from the first Sanskrit Syntax Symposium on computer disk; Sarah Tsiang provided unstinting and highly efficient support in the final proofing stage and went out of her way in tracking down bibliographical references. Last, but not least, I am deeply indebted to my wife, Zarina, and my son, Heinrich, for putting up with me and encouraging me during the many months that this volume took to prepare.

Hans Henrich Hock

(Urbana-Champaign, March 1989)

Syntactic gleanings from Bhartṛhari's Trikāṇḍī*

Ashok Aklujkar
University of British Columbia (Canada)

1.1. Bhartṛhari's Trikāṇḍī or Vākyapadīya[1] is chronologically the fourth major surviving text in the Pāṇinian tradition, coming after the works associated with Pāṇini, Kātyāyana, and Patañjali. For a linguist interested in theories of language and grammar, it is a text of greater direct importance than its three surviving predecessors, for it is the first explicit and sustained statement of a theoretical kind on language and grammar that we have available in the Pāṇinian tradition. In its case, we do not generally have to speculate on an implicit view of language and grammar (as in the case of the Aṣṭādhyāyī or the Vārttika), nor do we have just a few tantalizing and colloquially worded theoretical statements interspersed in a mass of derivational detail (as in the Mahābhāṣya). For syntax in particular, it is a mine of information and insights, as its name, Vākyapadīya, to some extent implies.[2]

Since the discussion of the Sanskrit grammarians usually proceeds as if Sanskrit is the only language to be analysed for theoretical gains, the Vākyapadīya does not contain a general consideration of syntax, i.e., a general syntactic theory or a theory of syntax in the abstract, with reference to languages other than Sanskrit or in explicit universalist terms. One is required to put such a theory together on the basis of some general statements by the author and on the basis of certain other statements of his which, although made in the context of Sanskrit, seem to have been intended as universally applicable.

Even as far as the syntax of Sanskrit is concerned, the work is not intended as an exhaustive or exclusive treatment of the topic. It rather concentrates on particular aspects and cases, but it does so in a remarkably rich and rewarding manner.

1.2. Two of the possible approaches that a paper exploring the Trikāṇḍī from the syntactic point of view could take are already indicated by what I have said so far. The paper could either deal with what the Trikāṇḍī has to say in the area of a general theory of syntax or it could concern itself with the Trikāṇḍī's observations on the syntax of Sanskrit.

There is, however, a third possible approach: The first two books of the Trikāṇḍī, the main text of which is written in verses (kārikās), traditionally include an explanatory and supplementary prose gloss known as Vṛtti (V).[3] Anyone who has done sufficient reading in Sanskrit śāstra (particularly philo-

sophical) prose, is struck by this Vṛtti as a work having a distinctive style.[4] The distinctiveness of its style, in turn, is due to its diction,[5] certain embellishments,[6] and some devices adopted to get the point across,[7] as well as to its syntax. Therefore, a third approach to the Trikāṇḍī appropriate in a volume devoted to Sanskrit syntax would be one of studying the syntax of the Vṛtti. It is this approach that I intend to take.

1.3. My selection of syntactic features of the Vākyapadīya Vṛtti for inclusion in the following discussion is naturally determined by my impressions of what is commonly known about the syntax of Classical Sanskrit and about the syntax of Sanskrit philosophical commentarial prose in particular. I shall set aside, or mention only as background, those features which I believe are common knowledge.[8] Given the limitations of space, I shall further confine myself to word order.

2.1. It is well known that the connectives *ca* 'and' and *vā* 'or' commonly occur at the end of the set of items they connect. Only rarely are they used after each single item. One can add a specification to this observation on the basis of works like the Vākyapadīya Vṛtti: If the second member of a pair joined by *ca* or *vā* contains a qualifier (usually an attributive adjective), then *ca* or *vā* is placed after that qualifier, not at the end of the whole second member.[9] Illustrative examples[10] are:

(1) ... śāstra-vyavahāram anupatati, śāstra-vyavahāra-sadṛśaṁ ca laukikaṁ bheda-vyavahāram. (V 1.24-6)[11]
'(The abstracted word meaning) supports (i.e., serves as the basis of) the statements seen in the science (of grammar) and those analytical statements of the users (of the language) which are similar to statements seen in the science (of grammar).'

(2) ... jñāne śāstra-pūrvake vā prayoge ... (V 1.155)[12]
'(Merit consists in) knowing (the grammatical expressions) or in using them subsequent to (learning what) the science (of grammar has to say about such expressions).'

The situation in these instances is the same as when *ca, vā, hi, tu*, etc. join clauses. There they generally appear after the first major word of the clause they connect to a preceding clause. The qualifier of the second member in the above instances enjoys a status similar to that of a word introducing a clause.[13]

2.2. Another peculiarity about the placing of *ca* and *vā*, regarding which I do not recall reading anything in the discussions of Sanskrit syntax, is that words which add emphasis, such as *api* and *eva* push *ca* and *vā* from the second position in the clause to the third place;[14] cf. (3) and (4). And the same displacement is seen in the case of *hi*, as in (5).

(3) yo 'pi cābhidhātā śrotā vā ... (V 1.24-6)
'And the speaker or hearer who ...'
pakṣāntare 'pi ca ... (V 1.37)
'And even under the other view (under which an already existing effect is simply manifested) ...'

tasyāpi ca pratyāyyasya ... (V 1.62)
'And even of that signatum ...'
teṣām api ca ... (V 1.73)
'And even of those (phonemes) ...'
smṛti-kāle 'pi ca ... (V 1.132)
'And even at the time of recollection ...'

(4) saiva ca ... (V 1.5)
'And that (language) itself ...'
vāca eva vā ... (V 1.12)
'Or, of language itself ...'

(5) sarve 'pi hi vādino ... (V 1.30)
'Indeed, **all** participants in philosophical discussion ...'
gopā[lāvipā]lādayo 'pi hi (V 1.123)
'Indeed (or since such is the state of affairs), even persons like cowherds and shepherds ...'
vyaktir eva [hi] gaur, nākṛtiḥ (V 1.69-70)[15]
'For it is an individual that is a cow, not a universal.'

2.3 I have sometimes wondered if there once was a difference of connotation between an expression of the type 'X *ca* Y *ca*' and an expression of the type 'X Y *ca*.' There are several passages in the Vākyapadīya Vṛtti, some of them quotations, which indicate that the first type of construction was favored, at least by the Vṛtti author and by some of his predecessors, when two items clearly belonging to two different groups in the speaker's perception (especially items logically opposed to each other)[16] were to be expressed together. See the examples in (6) - (8).[17]

(6) prajñāna-rūpa-pākaś[18] cāsaṃprakhyāna-rūpa-pākaś cāpāṃ prāṇo rasaḥ. sa khalv āvartī cānāvartī ceti. ... dvaitinaḥ khalv apy āhuḥ. nityāś cānityāś ca mātrā-yonayaḥ, yāsu rūpi cārūpi ca, sūkṣmaṃ ca sthūlaṃ cedaṃ bhuvanaṃ viṣaktam iti ... indriya-grāmaś cāntaryāmī ca, buddhiś ca kṣetrajñaś ceti. (V 1.8)
'(Some say:) "Prāṇa, which has a maturation in the form of consciousness (or Knowledge) as well as a maturation in the form of matter (or nescience), is the essence of the Waters. It is verily one that returns (in the case of some) and one that does not return (in the case of others)." ... The Dualists too, indeed, say: "The sources of discrete entities are permanent as well as impermanent (i.e., some sources are permanent and some are not), (sources) in which this universe, the one having form as well as the one lacking form, the subtle as well as the gross (i.e., this universe in its amorphous as well as non-amorphous and subtle as well as gross aspects), is attached." ... the set of senses and the Internal Controller, the intellect (or mind) and the Knower of the Field (Self/soul).'

(7) śabdavatī cāśabdā ca smṛtir nibadhyate. (V 1.29)
'A smṛti (social code), consisting of words as well as bereft of words (i.e., as something articulated as well as something preserved, without the benefit of verbal expression, in conduct only), is composed.'

(8) ... te sattā-saṁbandha-mātreṇopalabdhāś cānupalabdhāś ca ... (V 1.57)[19]
'... they (the words), merely through the relation of existing (i.e., merely because they exist), when they are apprehended as well as when they are not apprehended, ...'

2.4. The next peculiarity of the word order of śāstric Sanskrit as evidenced in the Vṛtti appears more interesting to me than the features I have briefly presented so far. It lies in the placing of genitive modifiers. The normal position of a qualifier in the genitive is, as we know, the same as that of the attributive adjective, namely preceding the noun. In some instances, however, the position is deliberately changed and the word is placed after the noun. The advantage to the author apparently is that it is linked simultaneously to the preceding and the following noun, usually with a different shade of genitival meaning; a kind of *śleṣa* or play on meaning results. I will call this strategy the *dehalī-dīpa* placing of the genitive: Just as a lamp placed on a threshold illumines the area in front as well as the room behind, so this sandwiched genitive throws light on the preceding as well as the following word; cf. (9) and (10).

(9) sa eva hi kalau śakti-vaikalyān nṝṇāṁ pravibhaktāṅgo dṛśyate. (V 1.5)
'In the age of kali, due to the deficient capacities of men, the same (Āyurveda) appears to men with its branches divided.'

(10) jñānātmakatvād vā puruṣasyaiva saṁskāra-hetavaḥ. (V 1.10)[20]
'Or, (the different lores) bring about the refinement of man alone (not of both man and knowledge, as in the preceding alternative), since man consists of knowledge.'

In all such instances we clearly have a stylistic consideration, or a consideration that had become a convention of śāstric writing for some authors, overriding the processes of natural or ordinary Sanskrit syntax. For a specific gain the usual word order is reversed, a move quite consistent with the Sanskrit culture's extraordinary sensitivity to the possibilities of multiple meaning, word economy, and, in general, language play.[21]

2.5 It seems that in works like the Vākyapadīya Vṛtti there is an additional, essentially rhetorical, principle operating behind word order. The author is interested optimally in producing conviction in his reader about the truth of what he states, and minimally in ensuring that the reader understands what he states. Toward these ends, he adopts devices similar to those of a good teacher. He moves from the general to the specific, or from the gross to the subtle, or from

the least arguable to a characterization specific to a particular line of thinking, or in a way that shows awareness of possible objections. One may not always be able to determine which of these possible ways of looking at his order is the right way or whether there is in fact only one right way, but one can be certain that a specific movement conducive to the author's goal of effective communication is there.[22] In fact, if one does not assume such a movement or something similar to it, one may not have any explanation for the order seen in words appearing in the same case and performing a common or identical syntactical role.[23] Note, for example, the following:

(11) abhinnāt saṁhṛta-kramād antaḥ-saṁniveśinaḥ śabda-tattvād ... (V 1.12)
'From the undifferentiated, sequenceless, internal language principle ...'

Here, the first adjective sets up a contrast between the ordinarily experienced language marked by diversity and the language-principle characterized by oneness. The second adjective explains why there is a lack of diversity in the language-principle: because sequence, which marks language in communication, is withdrawn in it. Finally, the third adjective indicates why sequence is not there or the fact that at the particular stage of his thinking the author is concerned not with the outgoing language in operation, but with the source of language in operation.

(12) tais tu krama-janmabhir ayugapat-kālair avyapadeśya-rūpair avayavaiḥ ... śabdāntaram ārabdhuṁ na śakyate. (V 1.23)
'With those sequentially produced, non-simultaneously existent, unidentifiable parts ... (which one has in an individual utterance of a word) it is not possible to bring into existence another entity (or an entity of a different kind, a collectivity having a stable nature, called) word ...'

In this instance, each subsequent adjective takes us nearer to the final assertion and seems to assume a possible question in between. In the utterance of a word, sound particles are produced in a sequence, hence they cannot physically form a unity called word. Well, someone might query, 'Is it not possible that they could all exist together subsequent to their coming into being?' The reply is: 'No, they do not remain in existence at the same time' and further, 'Even if they were assumed to coexist, because each is atomic in nature, they do not have expressible forms or known identities; we would not know that they have given rise to a particular word.'

Similarly, in (13), each succeeding adjective makes the statement more plausible. This can be seen through an imagined dialogue of the type (14).

(13) yāṁ sūkṣmāṁ nityāṁ atīndriyāṁ vācam ṛṣayaḥ sākṣāt-kṛta-dharmāṇo mantra-dṛśaḥ paśyanti tām ... (V 1.5)
'That language, subtle, permanent, and sense-transcending, which the seers who have realized dharma and who see mantras perceive...'

(14) 'If *vāc* or language is subtle, does it really exist?'
'It is permanently there.'
'If it is permanently there, why do we not perceive it?'
'You need persons with special qualities to perceive it.'

2.6. Finally, I would like to draw attention to the Vṛtti's use of parenthetical clauses. These interrupt, if not disturb, the normal word order of the sentences containing them. It is my impression that such, truly parenthetical, clauses are rare in Sanskrit expository prose. Particles and short phrases that indicate hesitation, emotion, etc. on the part of the speaker are occasionally employed in Classical Sanskrit poetry for the appropriate aesthetic effect. There may also be parenthetical particles, phrases, and clauses in the Vedic corpus (Thieme 1944), some of them genuine and some due to factors such as metrical constraints, textual corruption, etc. However, as far as I can recall and ascertain without rereading a large mass of Classical śāstric prose, there are very few, if any, truly parenthetical clauses in that body of literature. The Vṛtti, along with Maṇḍanamiśra's Brahmasiddhi, seems to be a definite, if not a large-scale, exception to this practice. Cf. passages such as (15).

(15) yathā hi jñānaṁ jñeya-para-tantraṁ jñeya-rūpa-pratyavabhāsatvād anirdeśya-sva-rūpam api jñānāntarasyeva bhinnāṁ svasyaivātmanaḥ sva-rūpa-mātrāṁ darśayati — tathā hy atyantam anupalabdham apy anyena jñānena smṛti-viṣayatvaṁ pratipadyate — tadvad ayam ... (V 1.51)
'Just as a cognition, which is dependent upon the object on account of the (invariable) reflection (in it) of the form of the object and which is unspecifiable in terms of its own form, displays the own-form component of itself, (a component) separated as if it were (a form) of another cognition — to clarify: although it is not at all apprehended by another cognition, it becomes an object of recollection — in the same way this (word) ...'

Here, within the relative clause that begins with *yathā* and gives an analogy, we have a parenthetical clause, set off by the two dashes. To illustrate his point that in the process of signification a signifier reveals the signatum as well as its own form, Bhartṛhari employs the analogy of a cognition. A cognition is dependent on the object apprehended in it, in the sense that without that object it would not have any specifiable form. However, it must also be admitted that it reveals its own form as it apprehends or reveals the object — that it reveals its own form as it would of another cognition. How can we infer this? From the fact that the contents of even unnoticed cognitions become objects of memory. If I saw a pitcher, I can have a recollection of the form 'I saw a pitcher' even if after seeing the pitcher I did not have a reflective or introspective (*anuvyavasāya*) type of cognition like 'I saw a pitcher.' Now, since what is not experienced is not recollected, it must be concluded that the seeing of the pitcher was experienced (was recorded in consciousness) in some way — that when I saw the pitcher my consciousness recorded the pitcher as well as my seeing of it, that is, the object

of cognition as well as the form of the cognition. This argument is what the clause flanked by dashes states in a syntactically self-sufficient way. Its occurrence in the body of a larger sentence and the absence of a relationship of syntactic dependence on the words of the larger sentence which its words exhibit make it a true parenthetical clause.[24]

3. In the above discussion I have pointed out certain peculiarities of word order which may hold good only in the case of a specific body of literature written in a particular period, and which may have their origin in what the Vṛtti author inherited and what his objectives were. In a sequel to the present article, I shall offer a few theoretical observations on word order in Sanskrit.

Notes

*I am happy to acknowledge the financial assistance I received at various times since 1969 from the University of British Columbia Humanities and Social Sciences Research Committee, the Social Sciences and Humanities Research Council of Canada, the Shastri Indo-Canadian Institute, the American Council of Learned Societies, and the Alexander von Humboldt Stiftung of the Federal Republic of Germany. The assistance enabled me to carry out a sustained study of the text with which this paper deals.

Hans Henrich Hock suggested some changes in an earlier draft of this paper that went beyond the usual editorial suggestions for consistency. I wish to thank him for his informed friendly advice.

The paper is based on the following primary sources:

(1) Bhartṛhari's Trikāṇḍī or Vākyapadīya. I have reproduced the text of the Vṛtti from my critical edition of the Trikāṇḍī (under preparation). Those wishing to verify my references to the Vṛtti prior to the publication of my edition should consult the editions by K. A. Subramania Iyer:

(a) Vākyapadīya of Bhartṛhari with the Vṛtti and the Paddhati of Vṛṣabha-deva. Poona: Deccan College Postgraduate and Research Institute, 1966. (Deccan College Monograph Series, 32.)

(b) The Vākyapadīya of Bhartṛhari, Kāṇḍa II with the commentary of Puṇya-rāja and the ancient Vṛtti, Delhi: Motilal Banarsidass, 1983.

I have followed the enumeration of kārikās in Wilhelm Rau (1977), Bhartṛhari's Vākyapadīya: Die Mūla-kārikās nach den Handschriften herausgegeben und mit einem Pāda-Index versehen. (Abhandlungen für die Kunde des Morgenlandes, 42:4.) Wiesbaden: Steiner. Hence the numbers in my edition and those in the editions by Subramania Iyer do not always match. However, they are not far removed from each other.

(2) Patañjali's Vyākaraṇa-mahā-bhāṣya, ed. by F. Kielhorn, revised ed. by K. V. Abhyankar. Pune: Bhandarkar Oriental Research Institute.

(3) Yāska's The Nighaṇṭu and the Nirukta, ed. by Lakshman Sarup. 1920-7. Reprinted 1967, 1984. Delhi: Motilal Banarsidass.

[1]Although the title Vākyapadīya is now used to refer to all of the three books, the older tradition is to confine it to the first two books; see Aklujkar 1969:547-54.

[2]*vākya-pade adhikṛtya kṛtaḥ granthaḥ vākyapadīyam* 'Vākyapadīya is a book that deals with sentence and word (the latter mainly as a sentence constituent, not as a lexical item).' Bhartṛhari's chosen subject, then, naturally involves consideration of the relation between word

and sentence, particularly of the transition from the level of the sentence (vākya) to that of the word, and vice versa. It is with such transitions that syntax is primarily concerned.

In addition to its general meaning explained just now, the title Vākyapadīya seems to have the particular connotation of 'a work interested in determining whether the sentence or word is the primary unit of language'; cf. Prabhākara quoted in Aklujkar 1969:552.

[3]On the authorship of the Vākyapadīya-vṛtti, see Aklujkar 1972.

[4]The only other work with which a comparison of the Vṛtti has been suggested is the bhāṣya, attributed to Vyāsa or Vindhyavāsa, on the Yogasūtras. However, the impression that the Vṛtti's style is similar to that of the Yogabhāṣya is more likely to be due to a few passages and expressions that are common to the two texts. (These common elements are pointed out in an unpublished paper which I read before the 1970 annual meeting of the American Oriental Society.) There may not be any intrinsic similarity of style between the two works.

[5]A detailed study of the diction of the Vṛtti will be made after its word index, on which I am working, is finalized. As a sample, note the expressions *nirjñāta* 'known', *samācāra* 'proper conduct', *pradeśa* 'part', *abhikhyāta* 'well known', *upavyañjana* 'manifestor', *prabandha* 'continuum, stretch', *paridṛṣṭa* 'seen, commonly found (?)', *upagraha* 'taking on, assuming', and *pratilabdha* 'acquired, received (cp. Pāli *paṭilābha*)'.

[6]E.g. alliteration of *p* as in (a) or of *v* in (b).

(a) .... prayatnam abhipadyamānaḥ prati-śabdaṁ paritaḥ paricchinnāṁ śabdātmanaḥ saṁspṛśann iva manaḥ praṇidhatte (V 1.54)
'... coming to the effort (of articulation), (the speaker) in the case of each expression, applies his mind as if he is contacting expression-units that are cut off all around (i.e., the speaker seeks distinct phonetic shapes as he proceeds toward making an utterance) ...'

(b) ... vṛttiṣu tāvān eva sphoṭo vicitrāṁ vṛttim anuvidhatte (V 1.50).
'... in the (fast, medium, and slow) modes of utterance, a linguistic unit imitates diverse modes (i.e., gives the impression of variation in its manner of being) without (really) changing its (own) extent/measure.'

[7]As the author deals with subtle semantic concepts, he uses paraphrase or restatement much more than is common in Sanskrit expository prose. Note e.g. the characterizations of kriyā or action as expressed by a verb and of sattva or reified signata in (a), or the statement in (b) on the beginninglessness, as it obtains in a linguistic community, of the 'word : meaning' relationship.

(a) tasyāḥ pravṛttir iti samākhyātāyās tattvaṁ sādhyatvaṁ, sādhanākāṅkṣatā [°ṅkṣatvaṁ?], krama-rūpopagrahaḥ, kālābhivyakti-hetutvam. aparas tv arthaḥ sattva-mātraṁ. triṣv api kāleṣu sva-bhāva-siddham, abhidheyatvena pratyastamita-krama-rūpaṁ, nāma-pada-nibandhanam. (V 1.13)
'Of that action, which is designated pravṛtti, the nature is to have a "to-be-accomplished" character, to have an expectancy for means (that will bring it about), to assume the form of sequence, to become the cause of the manifestation of time. The other entity, artha, is all that which is existent (or reified), which is "accomplished" (or stable) by nature with respect to all of the three times (past, present, and future), which, as meaning, has no sequential form, which is the basis of nominal expressions.'

(b) asyedaṁ-bhāve sati śabdārthayoḥ so 'yam iti yaḥ saṁbandhaḥ so 'thādeśanasya kartum aśakyatvād autpattikaḥ, sva-bhāva-siddho, na kenacit kartrā kaṁcit pratipattāraṁ praty ajñāta-pūrvas tat-prathamaṁ kṛta iti. (V 1.23)
The identity relationship of word and meaning, which (relationship) comes about when there is a relationship of the form "this X_1 is (the meaning) of this (word) X," is simultaneous with the coming into being (of the word), since meanings cannot be taught; (it) is there by its very nature; (it is) not something previously unknown that some agent fashions for the first time for a recipient of information.'

[8]For instance, use of the ablative (usually of an abstract noun) to specify the reason behind an assertion and use of the instrumental to specify the indirect reason if the direct reason is expressed through an ablative.

[9]Awareness of this subtlety allows us to infer that in a phrase like *pūrvam agṛhītāvyaktaṁ gṛhītā vā* 'previously not grasped or indistinctly grasped' (V 1.23) the original reading is more likely to be *pūrvam agṛhītāvyaktaṁ vā gṛhītā*, with *vā* after the adverb qualifying the second member. Similarly, we can conclude that if we must introduce a *ca*, not found in the manuscripts, into the phrase *artha-vādān artha-vāda-prakārāṇi śruti-vākyāni* (V 1.8) 'explanatory passages [and] those sentences of the śruti which are like the explanatory passages', we should introduce it not at the end, but after the adjective of the second member in the pair *artha-vāda* and *śruti-vākya* — as *artha-vādān artha-vāda-prakārāṇi ca śruti-vākyāni*.

[10]Note that throughout this paper, I do not attempt to present a comprehensive collection of examples, counterexamples, or apparent counterexamples.

Words or letters not found in the manuscripts of the Vṛtti are put in brackets. Their acceptance into the text of the Vṛtti is frequently based on the testimony of the ancient commentator Vṛṣabha who, on the whole, had access to much better manuscripts of the Vṛtti than we have today.

[11]Similar examples are the following:

(a) ... śarīraṁ, pṛthag anyāṁś ca tīrtha-pravādeṣu prasiddhān arthān ... (V 1.38)
'... the (subtle transmigratory) body and the various other entities well known in tīrtha-pravādas (foundational philosophical views? philosophies intended for salvation?).'

(b) bhinnārthānāṁ [tu] padānāṁ bhinna-padasthānāṁ ca varṇānām ... (V 1.71)
'On the other side, ... of words having different meanings and of phonemes found in different words.'

(c) ... śruti-vihitāni karmāṇi smṛti-nibandhanāṁś ca bhakṣyābhakṣyādi-niyamān ... (V 1.149)
'... the actions/procedures enjoined by the śruti and the restrictions, based on the smṛti, regarding such matters as what should be eaten and what should not be eaten.'

[12]Similarly, in ... *vyāka[raṇa ... avadhā]raṇena sādhutva-jñāna-labhyena vā śabda-pūrveṇa yogena* ... (V 1.159-70), which I shall leave untranslated because a literal translation will not make much sense and a full explanation will take us too far afield.

[13]This is confirmed by a phrase like the following which approaches the length and function of a clause.

> svapne hi (or: svapne 'pi) badhirādīnāṁ śabdādi-pratipādanaṁ, ghana-saṁniviṣṭāvayavānāṁ ca kuḍyādīnām avayava-vibhāgam antareṇāntar veśmādiṣu sūkṣmāṇāṁ arthānāṁ darśanaṁ ... (V 1.36).
> 'Making known words, etc., even in a dream, to deaf persons and others who are similar to the deaf, and seeing subtle things inside residences without separating the constituents of thatched walls, etc., which (walls) have densely placed constituents ...'

Here the talk is of certain spirits and their extraordinary capacities, such as the capacity to make the deaf hear sounds in dreams and the capacity to see through thick walls. *śabdādi-pratipādanam* and *darśanam* form the pair connected by *ca*, but *ca* does not appear after either. It is placed after a qualifier (*ghana-saṁniviṣṭāvayava* 'of those thatched walls, etc. whose constituents are densely placed'), if not an adjective, of *darśana*, that is, after the first significant word of the second unit as in the case of clauses joined by *ca* or *vā*.

[14]It might be thought that *iti* in phrases such as *so 'yam iti ca* (V 1.68) has a similar effect. However, *so 'yam iti* means 'identification, superimposition' in such instances and has the value of a single, compound, word.

[15]Cf. *te 'pi hi* (Patañjali 3.1.26.15) cited in V 1.23.

In some cases, *hi* seems to take the third position, not as a result of the use of *api* or *eva* but as a result of its strong association with the subject word; cf. e.g. the examples in (a) and (b).

(a) praviviktaḥ sa hi tasya vastuno vyavahārātītaṁ rūpam. (V 1.24-26)
'That separated (word meaning) is such a form of that entity which (form) does not figure in communication (i.e., which has reality only as a product or tool of linguistic analysis).'

(b) prāyeṇa sarvo hi svasyāṁ svasyāṁ vidyāyāṁ vyākaraṇam anugacchati. (V 1.14-22)
'Usually everyone follows grammar in his respective branch of learning.'

The observation made in this section makes *tair eva [ca]* a probable reading in V 1.118, words 13-4.

[16]Cf. *vedaṁ ca vedāṅgāni ca* (Yāska 1.20) 'the Veda and the ancillaries of the Veda', *samānam ihamānānāṁ cādhīyānānāṁ ca* (Patañjali 1.31) 'of persons interested in and studying one and the same thing'.

[17]The sources of the quotations in example (6) are not known.

[18]Unless *prajñāna* and *asamprakhyāna* are opposite in meaning (which is possible), the original text here could have been *prajñāna-rūpa-pākaṣ [cāprajñāna-rūpa-pākaṣ ca samprakhyāna-rūpa-pākaṣ] cāsamprakhyāna-rūpa-pākaṣ cāpāṁ*, and the part set off in brackets could have been lost through haplography.

[19]Sentences like the following may be exceptions to the observation made in this section or, what is more likely, they may reflect the fact that the concepts connected by *ca* belonged to antithetical or distinct categories in the author's way of thinking:

(a) pradeśo 'pi brahmaṇaḥ sārvarūpyam anatikrāntaś cāvikalpaś ca. (V 1.9; a citation)
'The domain of brahman is coterminous with all forms (and hence with all vikalpas "conceptual constructs"), but it is also devoid of or beyond any vikalpa.'

(b) vedo hi lokānāṁ prakṛtitvena copadeṣṭṛ-rūpatvena ca vivarteṣu vyavasthāsu ca vidhātā (V 1.10)
'The Veda fashions the worlds as material cause and also as an instructor or guide in processes of diversification as well as in creations of order or arrangement.'

The double employment of *ca* in some of the verses (kārikās) of the Trikāṇḍī, as in *te liṅgaiś ca sva-śabdaiś ca* (1.26) and *ṣaṣṭhyāś ca prathamāyāś ca* (1.67), could be due to constraints of the metre.

When *ca* or *vā* joins three clauses, it may occasionally not figure in the first clause as can be seen from the following:

(c) yadi nityānāṁ śabdānāṁ abhivyaktir, janmādi-vikriyāpatir vā satāṁ, asatāṁ vā sopākhya-nirupākhyatvam ... (V 1.28)
'Whether it is (merely) a manifestation of permanent (basically unchanging) linguistic units, or transformations such as coming into existence in the case of (linguistic units) existing (in some other form), or states of being specifiable and being unspecifiable in the case of (previously) inexistent (linguistic units), ...'

(d) yo 'yaṁ jāta-vedā, yaś ca [...] puruṣeṣv āntaraḥ prakāśo, yaś ca [...] prakāśāprakāśa yoḥ prakāśayitā śabdākhyaḥ prakāśaḥ, tatraitat sarvam upanibaddhaṁ yāvad vastv avastu, yāvat sthāsnu cariṣṇu ceti. (V 1.12)
'All this, whether it is material or non-material [and] whether it is stationary [or] moving, is fixed in that which is this fire, and which is the internal light in men, and which is [...] the illuminator of the luminous and the non-luminous, the light called śabda (language).'

Contrast the use of *ca* in every clause in examples like (e).

(e) ye ceśvara-kāla-puruṣa-vidyā-kṣetrajñān vibhakta-tattvān āhuḥ, ye cānīśvaram akālam apuruṣam avidyaṁ akṣetrajñam avidyā-mātraṁ eva manyante, ye caikatvānatikrameṇa sammūrcchita-viruddhāparimāṇa-śakti-rūpa-nirbhāsa-parigraham apūrvāparaṁ viśvātmānaṁ kāraṇam ācakṣate, teṣāṁ ... (V 1.28)
'Of those who propound distinct (primary causes like) God, Time, Self, Knowledge, and the Knower of the Field, and (of those) who entertain only nescience devoid of God,

Time, Self, Knowledge, (or) the Knower of the Field, and (of those) who proclaim as cause an all-encompassing entity in which there are, without any loss of oneness, manifestations of infinite, mutually opposed, and unsegregated capacities and of which there is neither a predecessor nor a successor ...'

[20]Probably, the following sentences also contain a *dehalī-dīpa* use of the genitive:

(a) samyag-vipariṇatau liṅga-vacanādīnāṁ vyākaraṇaṁ nibandhanam (V 1.11)
'In changing properly the gender, grammatical number, etc., the analysis of gender, grammatical number, etc. is the basis.'

(b) na hy anityatve śabdādīnāṁ śāstrārambhe kiṁcid api prayojanam asti. (V 1.23)
'Under the alternative of impermanency of words, etc., there would be no purpose in beginning the science of words, etc.'

[21]As an example of the sensitivity mentioned here, note the following.
tathātrāsaty api śabda-vyakti-samavāye, śabdākṛter varṇāvayavāvagraha-prāpta-saṁskārābhiḥ kramotpannābhir buddhibhiḥ pūrvam agṛhītāvyaktaṁ vā gṛhītā saṁskṛte 'ntaḥ-karaṇe carama-vijñānenākṛtiḥ paricchidyate. (V 1.23))
'In the same manner, here too, although there is no aggregation of sound individuals, the form of the word-universal, previously unapprehended or indistinctly apprehended through cognitions which are impressed with the intake of phoneme-parts (i.e., parts in the form of phonemes) and which have arisen in a sequence, is determined with the final cognition. It is determined in the inner organ (or mind) which is modified through cognitions which are impressed with the intake of phoneme-parts and which have arisen in a sequence.'

Here, the instrumental forms (*varṇāvayavāvagraha-prāpta-saṁskārābhiḥ kramotpannābhir buddhibhiḥ*) are connected with the adjectival phrase *pūrvam agṛhītāvyaktaṁ vā gṛhītā* as well as *saṁskṛte 'ntaḥ-karaṇe*. To avoid having to repeat the instrumental forms, the author places *saṁskṛte 'ntaḥ-karaṇe* immediately after the adjectival phrase and, against the usual practice, allows the substantive (*ākṛtiḥ*) to be removed from its the adjectival phrase qualifying it.

[22]I would concede that if it were not for the order of expressions we would not be able to know in individual instances what the stages in the progression of thought were. These stages are, after all, not open to observation by others; there is no widespread agreement in their case. However, my point is that there is evidence suggesting that a presumed dialogue with the reader is responsible for the presence of certain expressions at certain points: A kind of bouncing board seems to exist in front of the author and his later words seem to be determined by the effect he thinks the earlier words will produce on the board.

[23]The condition 'performing a common or identical syntactic role' is not essential to the point I make. It is more of a methodological condition that serves to ensure that evidence of a clear sort is adduced. If different positions assigned to grammatically similar words are explored, the possibility that the difference in positions could be due to the difference in grammatical function is eliminated.

[24]The long sentence *yathaivotkṣepaṇa-bhramaṇa-recanādīnāṁ ... vyavahārā avatiṣṭhante* in V 1.23 may likewise be viewed by some as containing a series of parenthetical clauses.

A note on word order in modern spoken Sanskrit and some positive constraints

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1. Sanskrit is an inflectional language like Latin and Greek and hence admits of great freedom regarding word order. A classical passage from Patañjali is often cited to show that any word in a sentence can be put in any order or position and that there is no fixed word order as in English. Cf. example (1). In the English sentence *The dog bites the man*, if the order of words is changed, the meaning becomes completely different. But that is not the case with Sanskrit. The same sentence in Sanskrit would be as in (2), and the position of these three words can be altered (cf. (3)) without affecting the meaning.

(1) saṁskṛtya saṁskṛtya padāny utsṛjyante teṣām yatheṣṭam abhisaṁbandho bhavati | tad yathā | āhara pātraṁ pātram āhareti 'Words are uttered, formed correctly one by one. Their connection is according to one's desire, as in *āhara pātraṁ pātram āhara*.'

(2) śunakaḥ puruṣaṁ daśati

(3) daśati puruṣaṁ śunakaḥ
śunakaḥ daśati puruṣam
etc.

But this must not lead one to think that there is no unmarked arrangement of words or word order at all. The traditional unmarked word order is: Subject first, object next, gerund and infinitives in between and the finite verb (or verbal participle) in final position.[1] And the modern data that I have collected generally follow the above order.

2. If the sentences are non-verbal equational sentences, then normally the subject comes first, and the predicate, which is in the nominative case, comes last. Nakamura (1976:16) states that 'The word order in which the predicate comes first and the subject comes later (e.g. *nityaḥ śabdaḥ* ['the word (is) eternal', lit. 'eternal (is) the word']) is not observed in present-day Sanskrit.' The data collected by Aralikatti 1982 do not support this statement. There are a good number of sentences where the predicate comes first and the subject later (e.g. *gahano 'yaṁ viṣayaḥ* 'this subject is deep'). Data collected by Hock in his 1980/81 research on spoken Sanskrit in Uttar Pradesh (see also 1983a) likewise do not corroborate Nakamura's claim. My observation supports the general view

that the order of words is changed whenever the speaker's intention (*vivakṣā*) is to emphasize or focus on a particular word in a sentence.

3. Thus, in unmarked order, adjectives are put before nouns, but when they function as predicates, they generally follow. Vocatives are placed at the beginning of the sentence. Prepositions normally follow the noun that they govern. In sentences linked to preceding ones by relative pronouns or particles, these pronouns and particles normally are placed first, or, if they are enclitic, they are affixed to the first word of the clause. The interrogative markers *vā*, *khalu*, and *kila* are used at the end of a sentence only. *Khalu* and *kila* function as tag question markers. *Api* and *nanu*, as interrogative markers, occur in initial position. The interrogative *kim* (used in yes/no questions) occurs initially or finally, but it is used after the subject to mark *wh*-questions. Similarly adverbs of time and place are normally placed initially or medially. But deviations from this pattern are found when speakers want to focus on a particular adverb. The negative particle *na* is normally used before the finite verb but if the speaker's intention is to focus on negation, he may use it in initial position, as in (4).

(4) nāsīt (= na āsīt) kācit lipsā (Fs. 15-33).
'There was not any greed ...'

This is the unmarked word order generally observed in prose, but in poetry, due to the exigencies of versification and metre, there is a greater variety and freedom in the arrangement of the parts of the sentences. Additionally, perhaps, poets aspire after more elegant and varied diction.

4. But even in the normal prose of daily conversation or other varieties of spoken Sanskrit I have observed a great deal of variation whenever the speaker intends to focus on a particular word. Thus, instead of occurring initially, the subject (S) may occur in final position. Consider the examples in (5) - (7).

(5) kevalaṁ sūtram eva paṭhantaḥ āsan sarve 'pi (D I-71)
S
'They were all reading only sūtras.'

(6) tadupari bahu svayaṁ vimarśanaṁ kartum ālocayituṁ prābhavan te
S
'They themselves were capable of thinking critically and commenting on them (texts).' (D I-77)

(7) tān eva guṇān idānīṁ praśaṁsāmahe vayam (FS V-27)
S
'Now we are appreciating those very qualities.'

Secondly, verbs (V) or predicates (Pred.) may open the sentence instead of closing it. Consider (8) - (10), where (8) has an initial verb, (9) has two occurrences of negative *na* + verb in initial position in two conjoined sentences, and (10) offers an initial predicate noun phrase. Also the object (O) may occur in initial position, as in example (11), as well as in (7) above. As an attributive, the object may occur in final position; cf. (12).

(8) santi bhūyasyaḥ smṛtayaḥ svānte (FS 15-2)
V
'There are many memories in my mind.'

(9) nāsīt kācit lipsā nāsīt kācit mahatvākāṅkṣā (FS 15-33)
V V
'Neither was there any greed nor was there any ambition.'

(10) snehabhājanam aham asmi eteṣām (FS 15-13)
Pred.
'I am worthy of their affection.'

(11) taṁ ca mahotsavaṁ sarve bhavantaḥ smaranti (FS V-5)
O
'That great function — (I think) all of you remember.'

(12) trayo 'pi anuvarteran kām api ekāṁ paddhatim (FS 15-13)
O
'All the three (institutes) should follow one common pattern (of administration).'

According to Speijer (1886), in passive sentences, the kartṛ (agent) seems to take precedence in the traditional order of words and not the nominative of the karman (patient). However, my data show that, while the kartṛ (N3) sometimes occurs first, at other times the karman (N1) does. Here too the variation in order is due to focus on the particular constituent. Cf. examples (13) and (14) vs. (15) and (16).

(13) manuyājñavalkyādibhiḥ ācāradharmaḥ nipuṇam pratipāditaḥ
N3 N1 (FS VIII-23)
'The code of conduct has been very well explained by seers like Manu and Yājñavalkya.'

(14) asmābhiḥ manorathaparamparā bahvyaḥ cintyamānā āsan
N3 N1 (FS V-123)
'A series of plans and desires were entertained by us.'

(15) snehottharh vākyaṁ sarvaiḥ bhavadbhiḥ śrutam (FS 15-14)
N1 N3
'All of you have listened to his statements emanating from his affection.'

(16) etat vivecanena atīva kṛtajñatā nivedyate mayā (D I-102)
N1 N3
'For this discussion, I convey my profuse thanks.'

Adverbs may be placed at the end instead of in medial position, for the sake of emphasis; cf. the series of clause-final adverbs in (17).

(17) urarīkṛtya ca taduttaradāyitvaṁ sarvatha nirvāhitaṁ
kṣamatayā sanniṣṭhayā samyaktayā sadaiva (FS 15-83)
Adv. Adv. Adv. Adv.
'Having accepted the responsibility, by all means, he discharged it efficiently, loyally, properly, (and) at all times.'

5. Positive constraints on word order:

5.1. There is a positive constraint on word order for object complements, i.e. for the quasi-predicative complements of direct objects in sentences like English *make someone* ***a king***. This is particularly true in the case of verbs of making, considering, knowing, calling, naming, appointing, electing, etc. These structures, which are termed complex transitive complementation by Quirk et al. (1972), have both a direct object and a complement, the latter having the same relation and coreference to the former as the predicate noun phrase or adjective has to the subject of a full clause.

Here the complements cannot be considered second objects because the verbs governing them are not ditransitive. This is not only because these verbs are not included in the standard ditransitive lists of Sanskrit grammar[2] but also because the complements do not refer to a separate constituent but instead form a semantic unit with the direct object. At the same time, the complement cannot be considered a karmaviśeṣaṇa or attribute, since an attribute is dispensable (sākāṅkṣapada) for the completion of a sentence, whereas the object complement is indispensable. (Some grammarians therefore refer to it as uttaraviśeṣaṇa.)

Consider the examples in (18) - (20). If in these examples the word order were changed, very different interpretations would result; cf. e.g. (18').

(18) bhagavatkṛpā mūkaṁ vācālaṁ karoti (FS 3-0)
'The grace of the Lord makes the dumb talkative.'

(19) ācāryaḥ ajñaṁ vijñaṁ karoti
'The teacher makes the ignorant wise.'

(20) saḥ anabhijñaṁ dhīmantaṁ gaṇayati
'He considers the ignorant wise.'

(18') bhagavatkṛpā vācālaṁ mūkaṁ karoti
'The grace of the Lord makes the talkative dumb.'

5.2. Another positive constraint on the word order of Sanskrit as of all Indian languages is in respect to the position of the exclusive marker *eva*, which must be placed directly after the particular word (or the first word of the constituent) that it is intended to be marked as significant. Consider the examples in (21) and (22), where (21) exhibits *eva* in the position after the first word of the emphasized constituent.

(21) asminn **eva** uparāṣṭrapatibhavane asmābhiḥ saṁyojitāni vidyante viśiṣṭāni saṁskṛtasammelanāni (FS 12-13)
'In this **very** official residence of theVice-President we have arranged special conferences on Sanskrit.'

(22) gatavarṣe **eva** śrīvivekānandacaritasya prakāśanasamārohaḥ asmābhiḥ kṛtaḥ āsīt (FS 12-14)
'**Only** last year we arranged the function (on the occasion) of the publication of a biography of Vivekananda.'

5.3. Similarly there is a positive constraint on the order of the inclusive marker *api*. If its place is changed, the meaning changes accordingly. Consider the following examples:

(23) bhāratasarvakāreṇa rājyasarvakāraiś ca saṁskṛtavidyāyāḥ **api** arthakāvitvaṁ sādhitam (FS 15-60)
'The Government of India and the State-Governments have tried to make **even/also** Sanskrit education economically productive.'

(24) punaśca yadā ādeśaḥ syāt — āgaccha — āgamiṣyāmy **api**
'Again when an order asking me to come back is issued (by the Government), I shall come back **too**.' (FS 15-42)

6. Conclusion

Most of the speakers whose utterances are cited here are eminent traditional Sanskrit scholars, in their fifties and sixties, had Sanskrit as their medium of instruction and teaching, and thus were relatively free from the influence of a foreign tongue like English. In the case of one or two more modern Sanskrit scholars, the deviation from traditional order is at times consciously employed to demonstrate elegance in diction and style. However, in a data set like mine, which is based on a cross-section of Sanskrit speakers of all types — both traditional and non-traditional — some of the variation may also be attributable to factors such as modernity and traditionality.

Whatever the background of the speakers, however, or their motivation for using divergent word orders, the examples discussed in this paper exhibit a number of deviations from the so-called traditional word order. And what is perhaps even more significant is that in certain types of structures, no variation is permitted.

The observed variation, as well as the constraints on variation, may well be a sign of the continuing vitality of Sanskrit. However, since my observations are based on a limited corpus of some 4000 sentences, it is difficult to be certain. Clearly, further research on spoken Sanskrit and a comparison with earlier forms of Sanskrit usage is urgently required.

NOTES

[1]ādau kartṛpadaṁ proktam dvitīyādipadam tataḥ ktvā tumuṁl lyap ca madhye tu kuryād ante kriyāpadam 'For initial position, the agent is specified, thereafter the accusative etc.; one should place the absolutive and infinitive in the middle, and the verb at the end.'

[2]Cf. e.g. the specification of roots like *duh* 'milk', *yāc* 'request', *prach* 'ask', *bhikṣ* 'beg' in the following passage: **duhi-yāci-rudhi-prachi-bhikṣi-ciñ-ām** upayoga-nimittam apūrva-vidhau | **bruvi-śāsi**-guṇena ca yat sacate tad akīrtitam ācaritaṁ kavinā || (Pat. on Pāṇ. 1.4.51; Kielhorn 1.334).

Nominal and pronominal objects in Sanskrit and Prakrit*

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It is said that the canonical word order in Classical Sanskrit is SOV and that Classical Sanskrit is a verb-final language. On the basis of this typological statement, following Greenberg 1966 and Hawkins 1983, we may predict certain other properties of Classical Sanskrit, most notably, the use of postpositions and the orders genitive-noun and adjective-noun.

However, the statement that Classical Sanskrit is an SOV language does not tell us anything about the **function** of word order in this language. If a language is given as being of SOV typology, we might immediately conclude that SOV is the unmarked sentence order, i.e., the one which is pragmatically neutral as in the declarative sentence *Devadattaḥ pātram āharati* 'Devadatta is bringing the bowl'. The basic syntactic rule does not tell us in which order to construct a declarative sentence with an adverbial of time. For instance, the prediction would be for the basic word-order SOV to be preserved; however, crosslinguistically there are countless examples of the inversion SOV → VSO after adverbials. Neither can we predict the word order in jussive (i.e. non-negative imperative) sentences. The prediction for rigid SOV languages would be the order 'the bowl bring!', but Classical Sanskrit offers both *pātram āhara* 'the bowl bring' and *āhara pātram* 'bring the bowl'.[1]

Similarly, no prediction can be made about the order of the verb and a pronominal object in either declarative or jussive sentences. For a rigid SOV language we would expect 'Devadatta it brings' and 'It bring!' Again, our data from Classical Sanskrit are far removed from this uniformity. Older varieties, namely (early) Vedic and Brāhmaṇa Sanskrit, would be even worse representatives of the SOV typology.

Here, typologists of word order neglect the syntactic rule of cliticization which may place the pronominal object in sentence-second position. That is, if a language cliticizes the pronominal object to the prohibitive particle, as Vedic Sanskrit does (cf. (1)), we would conclude that this language is of SOV typology. The same language, however, may cliticize the pronominal object to the verb in the jussive sentence (2).

(1) mā́ no vadhīḥ
not us slay
'Don't slay us.' (RV 1.104.8)

(2) sácasvā naḥ svástaye
accompany us well-being+Dat
'Abide with us for our well-being.' (RV 1.1.9)

Obviously, there are no syntactic or pragmatic grounds for saying that either the prohibitive (OV) or the jussive (VO) sentence is more basic or neutral.

Before addressing these issues in Prakrit, it will be necessary to consider briefly VS and VO characteristics of Vedic and Brāhmaṇa Sanskrit. According to Friedrich (1975:33) 'the SOV patterning and the modifier-modified rule were generally much weaker in Vedic, and then grew stronger in Classical times'. I don't want to offer any statistical accounts for Vedic and Brāhmaṇa Sanskrit, but would like to dwell for a while on what is commonly referred to as Wackernagel's Law, a process which produces sequences of VS and VO in Vedic Sanskrit.

The verb may appear initially if it is cliticized to an adverbial preposition, such as *á* (expressing the goal with verbs of motion); cf. (3).[2] The pronominal object appears following the verb and phonologically attached to it. However, by the same 'law' the pronominal object may be cliticized to initial adverbial prepositions, resulting in the OV sequence of (4).

(3) á gacchanti īm ávasā
to come.they him aid+INST
'They come to him with aid.' (RV 1.85.11)

(4) pári ṣīm nayanti
around him lead.they
'They lead him around.' (RV 1.95.2)

There is a dilemma facing the typologist of word order in answering the question as to which of the two sentences above is pragmatically more neutral: the VO sequence in (3) or the OV sequence in (4). Pragmatically, both (3) and (4) are neutral, with neither the verb nor the object being focal. In both cases the sentential stress falls on the initial preposition.

Similar instances of linear indeterminacy are available in modern languages. For instance, in Czech the pronominal object may be cliticized to the verb or to the sentence-initial adverb with the verb following; cf. (5) and (6). Both VO and OV versions are equivalent pragmatically; (6) is, however, emotionally affected (e.g., it would typically be used as an exclamation).

(5) Viděl=ho včéra
saw.he=him yesterday
'He saw him yesterday.'

(6) Včéra=ho vídèl
yesterday=him saw.he
'He saw him yesterday.'

In German there are instances of SV ~ VS indeterminacy if an adverbial element is used; cf. (7) and (8). Both (7) and (8) could be used interchangeably to answer the question 'Who sleeps in the room?' and may thus be considered to be equivalent pragmatically.

(7) Ein Kind schläft im Zimmer
'A child sleeps in the room.'

(8) Im Zimmer schläft ein Kind
'In the room sleeps a child.'

Returning to Indo-Aryan, typical instances of linear indeterminacy obtain in jussive contexts. For instance, in the play Mṛcchakaṭika, Cārudatta commands his servants in Sanskrit in either sequence, VO or OV, in identical linguistic and pragmatic contexts:

(9) Radanike Maitreyam anugaccha
Radanikā Maitreya+ACC follow
'Radanikā, follow Maitreya!' (1.38.4)

(10) Maitreya anugaccha tatrabhavatīm
Maitreya follow her-ladyship+ACC
'Maitreya, follow her ladyship!' (1.56.33)

VS and VO characteristics of Brāhmaṇa-Sanskrit may be outlined in the following points, using data from Canedo 1937:28-36 and Gonda 1959:7-69:

(i) The sentence-initial position of the verb is common in narrative passages in prose from the Old and Middle Indo-Aryan period. The verb in initial position may function as the phonological host to a following clitic (e.g. pronominal object or adverb):

(11) prakṣyanti mām ime mahāśālā mahāśrotriyāḥ
ask+FUT.they me these great-householders great-theologians
'These great householders and theologians will ask me.' (ChU 5.11.3)

(ii) The verb occurs initially in jussive sentences:

(12) dattāsmai bhikṣām
give=this+DAT food+ACC
'Give food to this (one)!' (ChU 4.3.7)

(iii) In expressions of volition the dative of purpose and the infinitive (expressing the realization of the wish) often appear postverbally. We may remind ŏurselves of Greenberg's Universal 15, according to which in expressions of volition and purpose, a subordinate verbal form always follows the main verb (except in rigid OV languages). This universal presumably reflects the tendency for languages to mirror the temporal order of events. The following examples are from the Taittirīya-Saṁhitā:

(13) Agnís tvā hvayati devayajyā́yai
Agni you+ACC calls divine-sacrifice+DAT
'Agni calls you to the divine sacrifice.' (TS 1.1.12)

(14) tám adhriyata hótum
that decided.he sacrifice+INF
'He decided to sacrifice that.' (TS 6.5.9)

(iv) In Brāhmaṇa-Sanskrit, as in earlier Vedic Sanskrit, Wackernagel's Law may place the verb in sentence-second position (i.e., the verb may be cliticized to the sentence-initial preposition):[2]

(15) sám paśyāmi prajā́ ahám
together=see.I posterity I
'I behold the posterity.' (TS 1.5.8)

Nominal objects in Classical Sanskrit prose appear as a rule to the left of their governing verb; in declarative and jussive sentences the postverbal position is found rarely and may be explained pragmatically. Pronominal objects tend to appear to the left of their governing verb in declarative sentences. In jussive sentences, however, postverbal position, where the pronominal objects are cliticizable to the verb, is not uncommon (but less common than in Vedic and Brāhmaṇa Sanskrit).

In Prakrit prose texts, nominal and pronominal objects may appear in both preverbal and postverbal positions, but in contradistinction to Classical Sanskrit it appears that postverbal position was preferred in jussive sentences. Chart 1 surveys the situation in Classical Sanskrit and dramatic Prakrits. Prakrit non-poetic passages in three dramas, Mṛcchakaṭika, Mudrārākṣasa, and Vikramorvaśīya, were analyzed statistically for the incidence of infinitival, nominal, and pronominal objects in declarative and jussive sentences. The Vetālapañcaviṁśati (Emeneau's 1934 edition) was analyzed in the same fashion as an example of Classical Sanskrit prose.

	DECLARATIVE SENTENCES						JUSSIVE SENTENCES			
	Infinitival Objects		Nominal Objects		Pronominal Objects		Nominal Objects		Pronominal Objects	
	VO	OV	VO	OV	VO	OV	VO	OV	VO	OV
SANSKRIT										
Vetālapañcaviṁśati	1	68	2	1322	8	303	4	29	4	20
Ratio	1 : 68		1 : 661		1 : 37.87		1 : 7.25		1 : 5	
DRAMATIC PRAKRITS										
Mṛcchakaṭika	14	17	37	394	23	117	68	56	17	6
Mudrārākṣasa	8	4	5	54	2	15	10	6	7	2
Vikramorvaśīya	6	9	3	75	6	23	14	10	8	3
Total	28	30	45	523	31	155	92	72	32	11
Ratio	1 : 1.07		1 : 11.62		1 : 5		1.27 : 1		2.9 : 1	

CHART 1: VO and OV orders in Sanskrit and dramatic Prakrit

In declarative sentences, Classical Sanskrit behaves as a rigid OV language. Nominal objects appear in postverbal position only exceptionally (2x) for what appear to be stylistic reasons. For instance, in Vetālapañcaviṁśati 18.25-6 the verb intervenes between coordinated objects:

(16) sakhīr ādideśa dauvārikaṁ ca
companions+ACC ordered doorkeeper+ACC and
'She ordered her companions and the doorkeeper.'

Similarly, pronominal objects appear in postverbal position only exceptionally. The ratio VO : OV is roughly 1 : 38 (8 : 303 instances). For instance the absolutive 'having heard that' is typically constructed in the OV fashion *etacchrutvā*; however, there are 6 instances of *śrutvaitad*.[3]

In Prakrit declarative sentences, the incidence of postverbal nominal objects is ca. 1 : 11.6. In the Mṛcchakaṭika the ratio OV : VO is 1 : 10.6 (37 : 394 instances), in the Mudrārākṣasa 1 : 11 (5 : 54 instances), and in the Vikramorvaśīya 1 : 25 (3 : 75 instances). An example of VO order is found in (17). Absolutives occur in both sequences, OV and VO; cf. (18) and (19).

(17) ... āadosi vajjhaṭṭhānaṁ
arrived.you execution-place+ACC
'You have arrived at the place of execution.' (Mudr. 7.3.12)

(18) cāṇakkaṁ nirākaria
Cāṇakya+ACC having-dismissed
'Having dismissed Cāṇakya ...' (Mudr. 5.9.67)

(19) nikkāsia rakkhasaṁ
having-discarded Rākṣasa+ACC
'Having discarded Rākṣasa ...' (Mudr. 6.2.29)

Infinitival objects in Classical Sanskrit prose appear as a rule in preverbal position. My statistics for the Vetālapañcaviṁśati show 68 instances of OV sequence vs. 1 instance of a VO sequence, given in (20).

(20) sakhīr ādideśa puradvāram avaroddhum
companions+ACC ordered gate+ACC close+INF
'She ordered her companions ... to close the gate.' (Vet. 18.25-6)

In dramatic Prakrits, infinitival objects appear in both postverbal and preverbal positions. (The postverbal position predominates in the Mudrārākṣasa, the preverbal position in the Mṛcchakaṭika and Vikramorvaśīya.) The overall ratio is roughly 1 : 1.

(21) icchadi sappaṁ daṁsedum
wants.he snake+ACC see+CAUS+INF
'He wishes to exhibit snakes.' (Mudr. 2.10.17)

(22) caridaṁ avagāhidum icchasi
acting fathom+INF want.you
'You wish to fathom the deeds.' (Mudr. 6.3.7-8)

A high incidence of preverbal pronominal objects in Prakrit declarative sentences might be taken as indicating that the Prakrits were verb-final languages, i.e. of OV typology:

	VO	OV
Mṛcchakaṭika	23	117
Mudrārākṣasa	2	15
Vikramorvaśīya	6	23

Altogether, in our three dramas, there were 155 examples of the preposed pronominal object in declarative sentences vs. 31 examples of the postposed object. A closer inspection reveals the following: It is common for focal pronominal objects to be placed in the marked sentence-initial position. Pronominal objects may be cliticized by Wackernagel's Law to sentence-initial adverbs and relative pronouns (especially in interrogative sentences):

(23) kiṁ me bhaaṁ dāvesi
why me fear show.you
'Why do you seek to intimidate me?' (Mudr. 1.22.22-3)

Furthermore, pronominal objects (marked in boldface) may be cliticized to the conjunction *jai* (*yadi*), discourse particle *khu* (*khalu*), and the negative particle *ṇa* in any sentential position:

(24) tā jai **me** daṁsaṇeṇa amacco pasādaṁ ṇa karedi
thus if me audience+INSTR minister favor+ACC not does.he
'If therefore the minister does not wish to favor me with an audience ...' (Mudr.2.10.26-7)

(25) kahaṁ paḍivaaṇaṁ vi ṇa **me** paḍivajjasi
how response+ACC even not me give.you
'How is it that you do not even give me any response?' (Mudr. 7.3.5-6)

Some of the remaining instances of OV typology (i.e., those which cannot be explained functionally or phonologically in terms of enclisis to particles and conjunctions in preverbal position, such as *edaṁ suṇia* 'having heard this' (Mudr. 7.16.9)) could perhaps be evaluated as Sanskritisms.

Among the 31 examples of VO there are four of the type *atthi=se mokkho*, lit. 'there is to him a release' (i.e., 'he might obtain his release') with the oblique form of the pronoun cliticized to the copula. Seventeen examples display the pronoun cliticized to the verb, as in (26).

(26) asūanti maṁ pakidīao
angry.are me subjects
'The subjects will be angry at me.' (Vikr. 4.73.2)

In five cases there is an adverb intervening between the verb and the pronominal object:

(27) pibaivva maṁ ṇaaṇehiṁ
drink.he as-if me eyes+INSTR
'He appears as if drinking me with [his] eyes.' (Vikr. 1.12.2)

However, the situation was clearly different in Prakrit jussive sentences. The postverbal position of both nominal and pronominal objects was the preferred one. In the case of nominal objects, the ratio of VO to OV is roughly 1.3 : 1 (92 vs. 72 instances in our three dramas). For the sake of comparison, in the Vetālapañcaviṁśati the ratio of VO to OV is 1 : 7; there are 29 instances of preverbal nominal objects vs. 4 instances of the postverbal position, the latter occurring at 144.22-3, 150.20, 150.21-2, 154.20. Instances such as *gṛhāṇa*

balim imam 'Receive this offering!' can perhaps be evaluated as concessions to the colloquial style.

In the case of pronominal objects, VO predominates over OV by a ratio of ca. 2.9 : 1 in the Prakrit passages in our three dramas (17 : 6, 7 : 2, 8 : 3 instances, respectively), whereas in Classical Sanskrit it is just the opposite: In the Vetālapañcaviṁśati, OV predominates over VO by the ratio of 5 : 1 (20 : 4 instances). These figures indicate that there was a strong tendency to cliticize pronominal objects to their preceding verb in the imperative. In declarative sentences, as shown above, this tendency was much weaker; here the ratio of VO to OV was roughly 1 : 5.

Virtually all the VO examples from Prakrit are of the type V + clitic pronominal object, attached immediately to the preceding verb; cf. (28) and (29). It is of interest to note that Sanskrit does not have a clitic form of the 3rd person pronoun and uses the full forms of the demonstrative pronoun *ayam* (Dat. *asmai* or Gen. *asya*, as in *dehi asya āsanam*).

(28) ṇedha maṁ lājamaggam
take me king's-highway+ACC
'Take me to the king's highway!' (Mṛcch. 2.6.50)

(29) hañje dehi se āsanam
Ceṭī give him seat+ACC
'Ceṭī, give him a seat!' (Mṛcch. 2.14.58)

In my data, there was only one instance of the pronominal object cliticized apparently to the intervening adverb (V Adv=Pron):

(30) moāvehi dāva ṇaṁ
(Skt. mocaya tāvad enam)
disentangle then it
'Just disentangle it!' (Vikr. 1.18.14)

Altogether, there were 11 examples of the preposed pronominal object in jussive sentences vs. 32 examples of the postposed object. Let me make clear that the preverbal position of the pronominal object does not mean that the pronoun was cliticized to the following verb. First of all, the pronoun can function as a phonological host to a following adverb which may intervene between the pronoun and the verb. Compare the following example which comes from a poetic passage and is not included in my statistics:

(31) edaṁ dāva viāraha
this just investigate
'Just investigate this!' (Mṛcch. 6.12)

Other instances of the preposed pronominal object may be explained by consideration of the Functional Sentence Perspective, whereby the focal object may appear in the marked sentence-initial position. Consider for instance the second clause in (32). (I have found four such examples in my data.) In addition, there was one instance of what Givón (1984) would call topic continuity in discourse; cf. the second clause in (33). In this example, the pronominal form *te* 'them' topicalizes the known information from the preceding

discourse. If *te* were cliticized to the imperative *paccakkhīkaredu* 'may he examine' the thread of discourse would be disrupted.

(32) muñcadha piavaassaṁ cārudattaṁ. maṁ vāvādedha
release dear-friend+ACC Cārudatta+ACC me kill+IMP
'Let go [my] dear friend Cārudatta! Kill me!' (Mṛcch. 10.23.4)

(33) ede khu tiṇṇi alaṅkārasañjoa vikkīandi.
these indeed three ornament-sets sold.are
te paccakkhīkaredu amacco
them examine+IMP minister
'These three ornaments of a set are offered for sale [and] you, the minister, should examine them yourself!' (Mudr. 2.22.72-3)

Finally, the non-focal pronoun may be cliticized to another argument by Wackernagel's Law, as in the following example:

(34) aṇṇāṇioeṇa maṁ ajjo aṇugehṇadu
command-entrusting+INSTR me lord favor+IMP
'May the lord favor me with (his) command!' (Mudr. 1.5.2)

There are three examples of prohibitive sentences with the personal pronoun apparently cliticized to the confirmatory particle *khu* (Skt. *khalu*) 'indeed' in preverbal position:

(35) sahi mā khu maṁ visumarehi
friend not indeed me forget+IMP
'Friend, please do not forget me!' (Vikr. 3.18.3)

In the Vetālapañcaviṁśati, the ratio of VO to OV in jussive sentences is 1 : 5 (4 : 20 instances). If we exclude 8 instances of jussive sentences with relative-correlative pronouns *yat — tat* (the type *yat kiṁ cin nigadāmi tac chṛṇu*,[4] lit. 'whatever I have to say that hear'), the ratio is 1 : 3 (4 : 12 instances). Broadly speaking, this is the opposite ratio of what we saw above for our dramatic Prakrits. Several questions must arise: How are we to evaluate those 4 instances of VO in the Vetālapañcaviṁśati? (*praveśaya tam* (8.4) 'bring him in!', *bhajasva mām* (32.1) 'give me the favor of your love!',[5] and *rakṣa mām* (84.30 and 138.4) 'protect me!') Should they be viewed as a concession to a colloquial register? (Or perhaps, a lower class dialect?) Is the source of OV word order in jussive sentences modeled on the pattern of sentences with relative-correlative pronouns *yat — tat* ? Also the preceding absolutive (which is almost always constructed as OV) could provide the model:

(36) tāṁ niścitya māṁ jñāpaya
her having-discerned me inform
'Find out who she is and inform me!' (Vet. 42.17-18)

No attempt has been made to collect and systematically study numerous instances of zero anaphora in both Classical Sanskrit and Prakrit. Thus in dialogue it is quite common to say 'Tell for what reason/why!' instead of 'Tell me for what reason/why!' as in (37).

(37) kathaya kasmin nimitte (Mudr. 1.5.8)

As noted earlier, Classical Sanskrit did not use the clitic form of the 3rd person singular *se* which is common in Prakrit. We find *vada me* 'tell me' but not **vada se* 'tell him' where the full form *asmai* would be used. Zero anaphora are typically used with passive imperatives when the recipient is obvious from the extralinguistic context; cf. (38). In causative constructions the pronominal causee and the goal are often not grammaticalized, as in (39). Similar examples are available from Prakrit passages; cf. (40).

(38) dīyatām eṣā
be-given+IMP she
'Let it be given (to him).' = 'Give it (to him)!' (Mudr. 2.22.38)
(*eṣā* (fem.) refers to the 'ring', *mudrā* (fem.).)

(39) mudrāṁ paripālayan udghātya darśaya
seal+ACC preserving having-opened see+CAUS+IMP
'Open (the letter) preserving the seal and show (it to me)!'
(Mudr. 5.9.13)

(40) jadā me paoaṇaṁ tadā gehnissaṁ
when me occasion then take+FUT.I
'I will take (them) away when there is an occasion for me.'
(Mudr. 2.22.21)

Finally, a few words on the pragmatic flexibility of word order in Prakrit vis-à-vis that of Classical Sanskrit. Both Classical Sanskrit and Prakrit may place the focal argument in sentence-initial position. The focal argument may be reinforced by the enclitic particle of emphasis *eva* (*jjeva* in Prakrit) 'in fact, really'. However, rigid OV languages are at odds with the requirement of the Functional Sentence Perspective to place objects (which usually convey new information) in postverbal position in jussive sentences. The Prakrits, on the other hand, favored strongly the postverbal position for both nominal and pronominal objects in jussive sentences, thus conforming to the requirement.

Furthermore, Classical Sanskrit does not exhibit postverbal enclisis of non-focal objects. In other words, Sanskrit and Prakrits differed in the way they expressed non-contrastive *kíll=him*, but not in expressing contrastive *kill hím*:

	Classical Sanskrit	Prakrit
kíll=him	tam māraya	mārehi=ṇa
kill **hím**	tam=eva māraya	taṁ=jjeva mārehi

In Sanskrit, the difference between non-contrastive *kíll=him* and contrastive *kill hím* was shown solely by the emphatic particle *eva*, whereas Prakrit reinforced the contrast by different word order. The focal object appeared in sentence-initial position as a phonological host to the emphatic particle *jjeva* (as in Sanskrit), but the non-focal object follows the verb as an enclitic.

How, then, is Cārudatta's VO Sanskrit in jussive contexts (cf. (42)) to be evaluated?

(42) dehi me prativacanam
give me reply+ACC
'Give me a reply!' (Mṛcch. 10.57.4-7)

A rigid SOV language would not allow both cliticization of the pronominal recipient and postverbal position of the object.[6] We saw above that in Classical Sanskrit this two-argument imperative would be typically construed as a single-argument imperative in the passive: *prativacanam dīyatām* lit. 'may the reply be given'. On the other hand, we also saw that in Brāhmaṇa Sanskrit, two-argument imperatives with cliticized pronouns were common (cf. example (12)). VO sequences in Classical Sanskrit imperatives can thus be evaluated as either archaisms or concessions to the colloquial style. It should be observed in this respect that dramatic Sanskrit, which presumably reflects a colloquial form of Classical Sanskrit, appears to be typologically in an intermediate position between Classical Sanskrit prose and the Prakrits of drama. Thus in Sanskrit passages of the Vikramorvaśīya, VO sequences in both declarative and jussive sentences are on the one hand more common than in the Vetālapañcaviṁśati, but on the other hand less common than in Prakrit passages of the same drama; cf. Chart 2. (As in Chart 1 the Sanskrit poetic passages have been excluded from the statistics.)

	DECLARATIVE SENTENCES				JUSSIVE SENTENCES			
	Infinitival Objects		Nominal Objects		Pronominal Objects		Nominal Objects		Pronominal Objects	
	VO	OV	VO	OV	VO	OV	VO	OV	VO	OV
Prose Sanskrit (Vetāla)	1	68	2	1322	8	303	4	29	4	20
Ratio	1 : 68		1 : 661		1 : 37.87		1 : 7.25		1 : 5	
Dramatic Sanskrit (Vikr.)	1	5	8	51	1	20	7	12	Ø	4
Ratio	1 : 5		1 : 6.37		1 : 20		1 : 1.71			
Dramatic Prakrits (Vikr.)	6	9	3	75	6	23	14	10	8	3
Ratio	1 : 1.5		1 : 25		1 : 3.83		1.4 : 1		2.66 : 1	

CHART 2: VO and OV orders in prose and dramatic Sanskrit and in dramatic Prakrit

Chart 2 shows the intermediate position of Sanskrit prose passages of the Vikramorvaśīya in the incidence of postverbal infinitival and pronominal objects in declarative sentences. The incidence of post-verbal nominal objects in the Sanskrit passages of the Vikramorvaśīya is even higher than that found in the Prakrit passages of the same drama. In jussive sentences, the incidence of the postverbal nominal object in Sanskrit passages of the Vikramorvaśīya shows an intermediate value between that found in prose Sanskrit (Vetālapañcaviṁśati) and in Prakrit passages of the same drama.

Measured against the colloquial registers, it would seem that the strong verb-final rule of Classical Sanskrit prose texts (categorial in case of declarative sentences with infinitival and nominal objects) may be largely a matter of literary style.

Summing up, we can agree with typologists that frequency of certain word order patterns reflects grammatical preferences and productivity.[7] On the other hand, we should not allow their quest for 'basicness' of a certain order to become a 'straight-jacket' for our research. This paper may demonstrate that functional analysis of various literary genres and the successive stages in the development of a single language is more insightful than causally and/or teleologically oriented research.

		Vedic Sanskrit	Brāhmaṇa Sanskrit	Dramatic Prakrits	Late Sanskrit prose
(i)	V cliticized to sentence-initial adverbial preposition	+	+		
(ii)	V after initial scene-setting adverbial expression	+	+	+	
(iii)	V-1 in jussive sentences	+	+	+	-
(iv)	Postverbal enclisis of pronominal objects in declarative sentences	+	+	+	-
(v)	Postverbal enclisis of pronominal objects in jussive sentences	+	+	+	-
(vi)	VO in expressions of volition	+	+	+	-
(vii)	Zero anaphora	rare	rare	rare	common

CHART 3: Verb position in different stages of Sanskrit and Prakrit

Chart 3 places the dramatic Prakrits in a broader perspective of Old and Middle Indo-Aryan. Vedic and Brāhmaṇa Sanskrit and the Prakrits share the trend to place the verb immediately after the initial scene-setting adverbial expression (ii) and to open the jussive sentence with a verb (iii). Similarly, these three diachronic stages of Indo-Aryan show a predilection for postverbal enclisis of pronominal objects in declarative and jussive sentences (iv and v). It may be said that word order in Vedic and Brāhmaṇa Sanskrit and in the Prakrits is governed pragmatically, i.e., it is subservient to the purposes of the Functional Sentence Perspective. For instance, we have seen above that the unmarked position of the pronominal object in jussive sentences in Prakrit was post-verbal. The preverbal position was marked and could be exploited for the purposes of the Functional Sentence Perspective. (Focal objects may be preposed in 'emotive order' and topical objects may be preposed to maintain topic continuity.) If, on the other

hand, the basic word order is fixed by a syntactic rule of placing the verb in sentence-final position and the object in preverbal position, then the verb stands outside of this perspective. This, of course, was the case of Classical Sanskrit, as known to us from late prose texts.[8]

NOTES

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[1]Cf. the explicit statement by Patañjali:

> saṁskṛtya saṁskṛtya padāny utsṛjyante teṣāṁ yatheṣṭham abhisaṁbandho bhavati | tad yathā | āhara pātraṁ pātram āhareti (ed. Kielhorn, I, 39, 11.18-9)
> 'Words are generated in accordance with grammatical rules, but their order [abhisaṁbandha] is free, as in *pātram āhara* and *āhara pātram* "fetch the bowl".'

[2]For other interpretations see Hock 1982a, Hale 1987, as well as Klein's and Schäufele's contributions to this volume. [Editor's note]

[3]Manuscript P (Bengali recension) corrected several of these to *(e)tacchrutvā* (Vet. 8.30; 10.28).

[4]But there are also instances of postposed clausal objects:

brūhi	yad	abhimataṁ	bhavataḥ
say	what	desire	lord+GEN

'Say what you desire!' (Vet. 10.14)

Which of the two constructions, the above or one with relative and correlative (*yad abhimataṁ bhavataḥ tad brūhi*) — i.e. VO or OV — is more basic?

[5]*bhajasva mām* (32.1) appears with the preposed object in manuscript P (Bengali recension): *mām bhajasva*..

[6]Colloquial Turkish may place the nominal object and the focal pronominal recipient in postverbal position: *ver şu kitabī bana* 'give that book to me' (Mardin 1961:38).

[7]According to Hawkins (1983:15), 'Frequency typically reflects grammatical preferences and productivity ... it provides the only means we have of determining grammatical preference and productivity, and with it basicness. Changing frequencies in historically successive texts can then provide a sensitive quantification of ongoing changes involving word order doublets, whose syntactic/semantic/pragmatic functions are especially difficult to determine in the absence of native speakers.'

[8]It should be borne in mind that rigid SOV languages can achieve the same pragmatic effects of focalization and backgrounding of information by the use of particles. For instance, in Hindi one may say *Rām ne kavitā hī paṛhī* 'Ram read the poem' (with the 'exclusive' particle *hī* in an SOV sentence). In Prakrit or Brāhmaṇa Sanskrit the same would be achieved by placing the object sentence-initially (or finally): *kāvyaṁ paṭhitam Rāmeṇa* (*Rāmeṇa paṭhitam kāvyam*). In addition, the emphatic particle *eva* could be cliticized to the focal object in sentence initial position: *kāvyam=eva Rāmeṇa paṭhitam* 'It was the poem Ram read'.

Pāṇinian syntax and the changing notion of sentence

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1. The problem

In this paper, I will endeavor to pinpoint certain important aspects of the notion 'sentence' in the works of the early Sanskrit grammarians — Pāṇini, Kātyāyana, and Patañjali. There is a general tendency among the traditional commentators on Pāṇini to believe that all these three grammarians subscribed to the same notion of sentence, though, as shown by Kunjunni Raja (1976) and Deshpande (1980), the Trimunis held different views. Recently Bronkhorst (1984) has reopened the question, and hence a new and a fresh treatment may be called for. This presentation is a brief summary of a monograph I am writing on the subject.[1]

2. Basic issues

We may pose the following questions in order to provide a framework for the discussion:

(i) Is it absolutely necessary to have a finite verb (tiṅ) in a sentence?
(ii) Can there be a purely nominal sentence?
(iii) Can there be a purely verbal sentence with no nominals in it?
(iv) Can there be more than one finite verb in a single sentence?

These are only some of the questions which need to be carefully answered. However, answers must be provided from various different angles.

For instance, one can provide surface-oriented answers, looking purely at the words attested in texts. One can also provide derivation-oriented answers. A derivation-oriented answer may insist on the existence of certain elements in a sentence which are not actually attested in the surface of the text. There is no conflict in claiming that underlyingly each sentence must contain a finite verb, and yet using surface-sentences which may or may not have a finite verb. Thus, Kātyāyana's claim that each sentence must have a finite verb relates to the deeper derivational level and not to its surface expression. One can also look at the diachronic dimension of the evidence and see if there is any change in the pattern of attested sentence-structures.

In dealing with derivation-oriented answers, one must be careful in specifying the particular derivational procedures proposed by different grammarians, keeping in mind that a grammatical derivation is after all a conceptual construct imposed by a grammarian on the data observed by him. Such conceptual constructs differ from grammarian to grammarian, and there is no reason to believe

that the constructs of any one grammarian represent the true 'native' perception of a given language. It seems necessary to point this out, for scholars all too often cite insights of Patañjali to justify conclusions regarding Pāṇini. A case in point is Bronkhorst's (1984:310) use of Kātyāyana and Patañjali to detect how 'Sanskrit speakers look upon a sentence.' The implied logic seems to be this: All Sanskrit speakers have a common way of looking at linguistic data. This can be detected from the works of Kātyāyana and Patañjali. Since Pāṇini was a Sanskrit speaker, he must have had the same way of looking at his linguistic data. However, such a generalizing inference often creates serious problems in reconstructing the particular views held by particular grammarians regarding sentences which are identical in their surface expression. In Deshpande 1985, I have shown in detail how present-day judgments about 'natural ellipsis' in Sanskrit cannot be imputed into the works of ancient grammarians, because each of them had a different idea as to whether a given sentence was elliptical.

3. Sāmarthya: Semantic-syntactic networks in Pāṇini

3.1. Let us first examine the term 'samartha' in the Aṣṭādhyāyī. To quote J. A. F. Roodbergen (1974:iv):

> Practically, Pāṇini's term for what we call syntax is samartha. Literally, the term means 'fit', that is to say, fit for entering into meaningful combination with other words, whether in word-groups or in sentences. Since to Pāṇini the concept of sāmarthya suffices to account for syntactic relationships in any kind of utterance, he dispenses with formally defining what a sentence (vākya) is.

What is not totally clear is whether there is any formal relationship between the notions of vākya and samartha in Pāṇini's original system. I fully agree with Roodbergen that because Pāṇini has the concept of sāmarthya, he can dispense with formally defining what a vākya 'sentence' is. However, does the notion of sāmarthya define a vākya in Pāṇini? G. V. Devasthali (1974:212) comes close to holding such a position: 'The idea of vākya will have to be accepted where we find the sāmarthya; but in the absence of sāmarthya there can be no vākya also.' Mahavir (1984:28) holds the opposite view, namely that there is no connection between the notions of samartha and vākya in Pāṇini. The relationship between these notions thus needs a careful reanalysis.

3.2. As a possible implication of P 8.1.28 (tiṅi atiṅaḥ 'a finite verb after a finite verb'), it is generally claimed that Pāṇini accepts the possibility of sāmarthya between two finite verbs. However, Devasthali 1974 argues that this is an impossibility and that there is no passage in the Veda to show a case of a finite verb preceded by a semantically and syntactically related finite verb. He cites the examples in (1) and (2) and says (1974:213): 'the tiṅs, *yákṣi* and *gắya* are preceded by the tiṅs *vakṣi* and *árca* which are evidently asamartha.'

(1) á devắn vakṣi yákṣi ca (RV 6.16.2c)
'Bring the gods hither and sacrifice to them.'

(2) árca gắya ca vedhásе (RV 6.16.22c)
'Recite and sing for the master.'

In terms of attestation, what is beyond dispute is the fact that in these examples, finite verbs which are preceded by finite verbs do retain their high-pitch accent. On the other hand, Devasthali's claim that these pairs of verbs are semantically and syntacatically asamartha with each other is very doubtful. The forms *vakṣi* and *yákṣi* obviously share the same agent and patient, are linked by *ca* 'and', and obviously are semantically and syntactically related to each other. The same holds true for *árca* and *gā́ya* in the second example. These verbs likewise belong to a common semantic and syntactic network.

I have argued elsewhere (Deshpande 1980:11ff) that according to Pāṇini, two verbs and verbal notions can be related to each other semantically and syntactically. He has the notion of dhātusambandha 'relationship between two roots' (cf. P 3.4.1: dhātusambandhe pratyayāḥ), and he talks about a plurality of finite verbs being semantically interdependent (P 8.1.35: chandasy anekam api sākāṅkṣam). There is no justification for believing that these verbs are semantically and syntactically unrelated in the opinion of Pāṇini. A similar set of related verbs sharing one or more kārakas is referred to in P 8.1.51 (gaty-artha-loṭā lṇ na cet kārakaṁ sarvānyat). According to this rule, a *sya*-future form, cooccurring with a semantically related imperative form of the verb meaning 'to go', does not become unaccented, if not all the kārakas of these two verb forms are totally different, i.e., if there are at least some shared kārakas. The examples cited by Devasthali fit a similar pattern. Such an interpretation of the evidence cited by Devasthali may allow us to differentiate his examples from an example like (3). Here, the agent of the imperative form *átisṛja* is the Vrātya, while the agent of *hoṣyā́mi* is in the first person and therefore different. Here one can say that the two finite verbs are semantically and syntactically unrelated to each other (asamartha) and hence the verb *hoṣyā́mi* retains its accent.

(3) svayám enam abhyudétya brūyād vrā́tyā́ti sṛja hoṣyā́mīti
(AV 15.12.2)
'Having approached him himself he should say "Vrātya, give permission, I am about to sacrifice.'

Thus, the evidence in Pāṇini's rules points to the conclusion that in his view, two or more finite verbs could be samartha, i.e. 'semantically and syntactically related' with each other.

4. Kātyāyana's objections and revisions

4.1. Kātyāyana feels that it is necessary to define the notion of vākya 'sentence' and to bring several sections of Pāṇini's grammar under the governing condition 'in the same sentence' (samānavākye), since according to his understanding of the notion of samartha, the latter notion was not capable of removing certain derivational problems. For instance, consider the example quoted by Patañjali to illustrate this problem:

(4)	nadyāḥ	tiṣṭhati	kūle
	of the river	(he) stands	on the bank

'(He) stands on the bank of the river.' (MB Vol. I, p. 368)

It is argued by Patañjali (and presumably by Kātyāyana on whose behalf Patañjali is presenting this example) that here the words *nadyāḥ* and *kūle* are semantically and syntactically related to each other, and the words *tiṣṭhati* and *kūle* are also related to each other, but that there is no such relationship between the words *nadyāḥ* and *tiṣṭhati*. In this interpretation, the word *tiṣṭhati* is preceded by a semantically and syntactically unrelated (asamartha) word (*nadyāḥ*), and hence by P 8.1.28 (tiṅi atiṅaḥ), the verb *tiṣṭhati* cannot become unaccented, although it ought to be. To avoid this difficulty, Kātyāyana proposes that rules like P 8.1.28 should not be governed by P 2.1.1 (samarthaḥ padavidhiḥ), but by a newly designed and added condition: samānavākye 'in the same sentence'.[2]

4.2. Kātyāyana realizes that Pāṇini has not provided a definition of the term vākya 'sentence', and that a definition must be provided. Kātyāyana provides two definitions of the notion vākya:

Vārttika 9 on P 2.1.1:

> ākhyātaṁ sāvyaya-kāraka-viśeṣaṇaṁ vākyam
> 'A sentence is (a group of words consisting of) a finite verb along with related indeclinables, kārakas, and qualifying words.'

Vārttika 10 on P 2.1.1:

> ekaṁ
> 'A sentence has one (i.e. at least one, and no more than one) finite verb.'

With these two definitions, if we look at example (4), we can say that it is a vākya 'sentence' according to these definitions, and that the verb *tiṣṭhati* is preceded by the non-verb item *nadyāḥ* 'in the same sentence' (samānavākye). Accordingly, Kātyāyana feels that his revised formulation accounts for the desired loss of accent in the form *tiṣṭhati*, in spite of the fact that in his view, these two words are not semantically or syntactically related to each other.

This brings out an important point missed in Devasthali's discussion. As noted earlier, Devasthali (1974:212) says: 'The idea of vākya will have to be accepted where we find the sāmarthya; but in the absence of sāmarthya there can be no vākya also.' Contrary to Devasthali's view, Kātyāyana felt the need to re-design the procedure precisely because, in his opinion, two words could belong to a sentence, even when they were not samartha 'semantically and syntactically related to each other'. In Kātyāyana's own terminology, yukta-yukta 'items connected to connected items', i.e. indirectly connected items, are asamartha to each other, though he is willing to admit that they belong to the same sentence.

5. Nominal and verbal sentences in Pāṇini

5.1. The evidence in Pāṇini generally seems to indicate the following:

(a) There can be purely nominal sentences and their derivation does not require the assumption of an underlying finite verb.

(b) There can be verbal sentences which are a mix of verbal and nominal items.

(c) There cannot be any purely verbal sentences, in the sense that they contain only one or more finite verb forms and do not contain at least underlyingly a nominal element.

(d) The evidence in the Aṣṭādhyāyī shows that there are at least some nominal expressions which do not require cooccurrence of a verb for their derivation. But no verb form can be derived without at least the underlying cooccurrence of a nominal item.

5.2. I shall briefly review the evidence in Pāṇini's grammar which supports the above conclusions. The most crucial rule in this connection is P 2.3.46 (prātipadikārtha-liṅga-parimāṇa-vacana-mātre prathamā). Without getting into the details of its interpretational history, it may be pointed out that while other case endings are either prescribed to denote particular kārakas or are conditioned by the cooccurrence of particular items (kārakavibhakti vs. upapadavibhakti), the nominative case endings (prathamā) are prescribed only to denote the meaning of the nominal stem, its gender and number, and nothing else. The implication is that the nominative case is used when no additional syntactic meanings such as 'agent' or 'patient' need to be or remain to be denoted. Thus, an expression such as *rāmaḥ sundaraḥ* 'Rāma (is) handsome' can be derived without any reference to a finite verb. Here, Rāma is neither agent nor patient of any stated or understood verb, and hence such roles do not need to be expressed by any item. This makes the nominals *rāmaḥ* and *sundaraḥ* eligible for the residual or default case, the nominative.

It is crucial to realize, as demonstrated by Cardona (1976), that Pāṇini does not define the nominative as the case of the subject of the sentence, nor as the case of the agent of an active verb or patient of a passive verb. The nominative case according to the original system is added to an item if any semantic roles like 'agent' either do not remain to be expressed or do not need to be.

The Pāṇinian derivation of example (5) may make this point clear.

(5)	rāmaḥ	grāmaṁ	gacchati
	Rāma+Nom	village+Acc	go+present 3rd sing act

'Rāma goes to the village.'

According to P 3.4.69 (laḥ karmaṇi ca bhāve cākarmakebhyaḥ [kartari P 3. 4.67]), a finite verb ending (= la) can be selected to express either the notion of agent (kartṛ), patient (karman), or action (bhāva). In the form *gacchati* of (5), the finite verb ending *-ti* expresses the syntactic meaning 'agent' (kartṛ). Now, while the meaning 'agent' is expressed by the affix *-ti*, the meaning 'patient' (karman) remains unexpressed on the verb. P 2.3.2 (karmaṇi dvitīyā), governed by the condition P 2.3.1 (anabhihite), introduces the accusative case to denote the meaning 'patient' (karman), if this meaning has not been denoted otherwise (by a finite verb ending etc.). Thus the word *grāma* gets the accusative case. The finite verb affix *-ti* already expresses the notion of 'agent' and hence this notion does not need to be expressed again by another morphological item. Thus, the

word *rāma* gets the residual nominative case. A similar process of case assignment applies to passive sentences.

Even when there is a verb form in the sentence, the nominative thus is not defined in terms of agreement with the verb form, but as a residual or default case. The important consequence of this treatment of the nominative is that the system allows the use of the nominative after the so-called indeclinables, such as *ca* 'and',*vā* 'or', *yāvat* 'while': A word like *ca* is theoretically a nominative form, whose nominative ending eventually is deleted by P 2.3.82 (avyayād āpsupaḥ). Thus according to Pāṇini, there can be a number of nominatives in any given sentence. Compare for instance example (6).

(6) rāmaḥ api odanaṁ phalaṁ vā
Rāma+Nom even+Nom rice+Acc fruit+Acc or+Nom
na khādati
not+Nom eats
'Even Rāma eats neither rice nor fruit.'

This concept of the nominative case in non-subject positions is unique to Sanskrit grammar, and is used primarily to give the status of pada 'inflected word' to items which are uninflected in their surface expression. It has no syntactic value whatsoever. However, it is an integral feature of the Pāṇinian system, since it is needed for applying to the indeclinables the normal rules of morphophonemics, compounding, etc. It can therefore not be overlooked.

5.3. The original Pāṇinian system also handles the derivation of certain participial clauses without the assumption of a finite verb. For instance, let us evaluate example (7).

(7) rāmaḥ gataḥ
Rāma+Nom gone+Nom
'Rāma went.'

In this sentence, the participle form *gata* is derived from the root *gam* by adding the past participle affix *-Kta* (= *ta*) with the syntactic meaning 'agent' (kartṛ) by P 3.4.72 (gatyarthākarmaka-śliṣa-śīṅ-sthāsa-vasa-jana-ruha-jīryatibhyaś ca). Since the notion of 'agent' has thus already been expressed by the affix *-ta*, the agent *rāma* gets the residual or default nominative by P 2.3.46 (prātipadikārtha-liṅga-parimāṇa-vacana-mātre prathamā). Thus, the derivation of example (7) does not require the assumption of a finite verb in the original system of Pāṇini.

5.4. As I have demonstrated elsewhere (Deshpande 1980:47-65), Pāṇini's system handles the derivation of certain infinitival sentences without the assumption of a finite verb. For instance, according to the original Pāṇinian scheme, in example (8) the infinitival affix *-tum* denotes the syntactic meaning 'agent' by P.3.4.67 (kartari kṛt). Since the meaning 'agent' has already been expressed, the agent *rāma* (and its coreferential adjectival, *samartha*) gets the residual nominative affix. Thus, the sentence does not require the assumption of a finite verb.

(8) rāmaḥ gantuṁ samarthaḥ
Rāma+Nom go+Inf able+Nom
'Rāma (is) able to go.'

5.5. Can one have a purely verbal sentence which does not involve any nominals in its derivation? The verdict of the original Pāṇinian system would be negative. While it is possible to derive a purely nominal sentence without a finite verb, no finite verb can be derived in Pāṇini's system without assuming its coreference with at least an understood nominal. Pāṇini's rules governing the category of 'person' for a verbal form make this quite explicit. Consider P 1.4.105 (yuṣmady upapade samānādhikaraṇe sthāniny api madhyamaḥ). According to this rule, a verb root takes a second-person affix if the verb cooccurs with a coreferential pronoun *yuṣmad* 'you', even if that pronoun is deleted from the surface by ellipsis. Thus to derive a single-word sentence such as (9), one must assume that the verb cooccurs with the pronoun *tvam* 'you' and that the pronoun has been deleted from the surface through ellipsis. Without this assumption, it is not possible to derive the form *gacchasi*. Thus, the underlying structure of (9), according to Pāṇini, would have to be identical with that of (10). Here Pāṇini makes use of the notion of natural ellipsis to derive expressions which in his opinion cannot be derived otherwise. (For details of the notion of ellipsis in Pāṇini, see Kiparsky 1982 and Deshpande 1985.)

(9) gacchasi
'(You) go.'

(10) tvaṁ gacchasi
'You go.'

6. Kātyāyana's contribution to syntactic theory

6.1. While discussing the notion of sentence, Devasthali 1974 essentially focussed on the implications of P.8.1.28 (tiṅi atiṅaḥ) and did not take into account the dimension of syntax. It is in the context of syntax that Pāṇini and Kātyāyana differ significantly from each other. I have pointed out some of these differences in Deshpande 1980, but here I will deal with these differences more systematically. Syntactically, the most crucial contribution of Kātyāyana is his doctrine that every sentence is underlyingly a verbal sentence, and that there are no pure nominal sentences. This notion has been developed consistently by Kātyāyana in a number of Vārttikas.

As seen in section 4.2, Kātyāyana defines the sentence as a group of words centered around a finite verb (Vārttika 9 on P 2.1.1: ākhyātaṁ sāvyaya-kāraka-viśeṣaṇaṁ vākyaṁ; and Vārttika 10 on P 2.1.1: ekatiṅ). In the same section, I have discussed the implication of Kātyāyana's claim that a sentence can have only one finite verb. Here I will focus on the fact that a sentence must have a finite verb. With this assumption, how can one deal with all the nominal sentences one finds in Sanskrit? Kātyāyana's answer is that there is an understood finite verb in every nominal sentence; cf. Vārttika 11 on P 2.3.1: ... astir bhavantūparaḥ prathamapuruṣo 'prayujyamāno 'py asti. A finite verb form of the

verb 'to be' (*as*) is understood in purely nominal sentences, making them derivationally identical with verbal sentences. The syntactic implications of such a position are discussed in detail by Kātyāyana in a number of Vārttikas.

6.2. While Pāṇini controls his case ascription rules by P .2.3.1 (anabhihite 'if not already expressed'), thus making the nominative his default case, Kātyāyana considers other reformulations for the nominative. One of these is as in (11). This formulation specifies that the nominative is added to words expressing certain kārakas, an interpretation which requires at least an underlying presence of some verbal notion.

(11) abhihite prathamā (MB, Vol. I, p. 262)
'The nominative case is used after a word if its kāraka classification has already been expressed otherwise (abhihite).'

How, then, would such a requirement be satisfied by purely nominal sentences such as (12)?

(12) vṛkṣaḥ plakṣaḥ
tree+Nom plakṣa+Nom
'Plakṣa (is) a tree.' (MB, Vol. I, p. 462)

In the absence of a verb, there could be no kāraka classification for the nominals *vṛkṣa* and *plakṣa* in this sentence, so how could one explain the nominative? While for Pāṇini the case form would be the residual or default nominative, Kātyāyana argues that we impute the verb *asti* in this sentence, thus making *vṛkṣa* 'the tree' the agent of that verb. Since the notion of agency would now be expressed by the affix *-ti*, the nominals would get the nominative case by the formulation abhihite prathamā 'The nominative case (is used for words) if (their kāraka classification has already been) expressed otherwise.'

An interesting feature of this formulation is that it allows the derivation of participial constructions without the assumption of a finite verb, because the kāraka classifications can be explained in relation to the participial affixes and be expressed by them (Vārttika 5 on P 2.3.1: tiṅ-kṛt-taddhita-samāsaiḥ parisaṁkhyānam). Thus, the formulation in (11) allows certain kinds of nominal constructions, as long as there are items with affixes capable of expressing kāraka classifications.

6.3. According to Khaṇḍadeva, the above represents Kātyāyana's position.[3] But while the formulation in (11) works for the example in (12), Kātyāyana's ultimate proposal is formulated as in (13).

(13) tiṅ-samānādhikaraṇe prathamā (MB, Vol. I, p. 462)
'The nominative case is used after a word if it is coreferential with the finite verb ending.'

Against this proposal, consider examples (14) - (16). In (14), the finite-verb affix *-ti* expresses the notion 'agent', and hence the agent *rāma* is coreferential with it. Thus, *rāma* gets the nominative case by the agreement rule in (13). In (15), the affix *-te* denotes the notion 'patient', and therefore the patient *odana* is coreferential with it. Thus *odana* gets the nominative case. And in (16), the affix *-te* is said to denote *bhāva* 'action' alone, and hence the agent is not coreferential

with it. Therefore, the agent *rāma* does not get the nominative case, but the instrumental. Since there is no word which is coreferential with an action-expressing verbal affix, there cannot be any nominative of agreement in a sentence of this type.

(14)	rāmaḥ	odanaṁ	khādati
	Rāma+Nom	rice+Acc	eat+act 3rd sing present
	'Rāma eats rice.'		
(15)	rāmeṇa	odanaḥ	khādyate
	Rāma+Inst	rice+Nom	eat+pass 3rd sing present
	'Rice is eaten by Rāma.'		
(16)	rāmeṇa	gamyate	
	Rāma+Inst	go+impersonal pass 3rd sing present	
	Lit: 'Going is done by Rāma.'		

6.4. However, the above proposal poses problems in dealing with nominal sentences. Kātyāyana's answer consists in reasserting the claim that in such nominal sentences, a finite verb form of the verb *as* 'to be' should be understood (Vārttika 6 on P 2.3.46: tiṅ-samānādhikaraṇa iti cet tiṅo 'prayoge prathamāvidhiḥ; Vārttika 7: uktaṁ pūrveṇa). The assumption of the verb *asti* makes it possible for Kātyāyana to deal with the syntax of sentences such as (7), (8), and (12) (repeated here for convenience) as follows.

(7)	rāmaḥ	gataḥ	
	Rāma+Nom	gone+Nom	
	'Rāma went.'		
(8)	rāmaḥ	gantuṁ	samarthaḥ
	Rāma+Nom	go+Inf	able+Nom
	'Rāma (is) able to go.'		
(12)	vṛkṣaḥ	plakṣaḥ	
	tree+Nom	plakṣa+Nom	
	'Plakṣa (is) a tree.' (MB, Vol. I, p. 462)		

Sentence (7), *rāmaḥ gataḥ*, will be explained as having the underlying form *rāmaḥ gataḥ asti* (or perhaps *āsīt* ?). In this underlying structure, the agent *rāma* is coreferential with the affix *-ti* of the verb, and hence it gets the nominative by Kātyāyana's agreement rule. Here the original syntactic value of the participial affix *-ta* as denoting 'agent' is not contradicted by the imputed finite verb, but remains derivationally unutilized. This 'non-utilization' is very important in Kātyāyana's theory. Consider example (17). In this sentence, the participial affix *-ta* is used in the sense of 'patient' (karman), while the affix *-ti* of the imputed finite verb *asti* denotes the sense of 'agent' (kartṛ). Thus, the sense of the participial affix is in conflict with the sense of the imputed finite verb affix. Yet the nominative case of the word *rāvaṇa* is, in this theory, strictly decided by its coreference with the imputed finite verb affix. In Pāṇini's scheme, on the other hand, its nominative marking is by 'default', since the patient *rāvaṇa* is already marked by the participial ending of *hataḥ*.

(17)	rāmeṇa	rāvaṇaḥ	hataḥ	[asti]
	Rāma+Inst	Rāvaṇa+Nom	killed+Nom	[is]

'Rāvaṇa is killed by Rāma.'

In examples like (12) *vṛkṣaḥ plakṣaḥ*, Kātyāyana imputes the verb form *asti* into the underlying structure. In this way, the agent *vṛkṣaḥ* becomes coreferential with the finite verb affix *-ti* which denotes 'agent', and thus *vṛkṣaḥ* becomes eligible for the nominative by Kātyāyana's agreement rule.

In example (8), *rāmaḥ gantum samarthaḥ* 'Rāma is able to go', Kātyāyana would again impute the verb form *asti*. I have discussed this example and its complexities in detail elsewhere (Deshpande 1980:71 and 106-8). Because of these complexities, Kātyāyana is forced to change the meaning of the affix *-tum*: For Pāṇini, the affixes *-tum* and *-tvā* invariably mean 'agent' (kartṛ). Kātyāyana, on the other hand, proposes that they are coreferential with the finite verb of the matrix sentence (Vārttika on P 3.4.26: ā ca tumunaḥ samānādhikaraṇe). In any case, in example (8), the word *rāma* turns out to be coreferential with the affix *-ti* of the imputed verb form *asti*, and hence gets the nominative case by Kātyāyana's agreement rule.

7. Historically justifiable understanding of Pāṇini's syntax

After comparing Kātyāyana's ideas with those of Pāṇini, it must be said that while Kātyāyana does advance interesting new ideas, he does not provide an overall systematic alternative which would take care of all areas of derivation. In contrast with Kātyāyana's proposals, Pāṇini

(i) maintains the derivational distinction between nominal and verbal sentences;
(ii) defines the nominative as a residual or default case, thereby enabling it to serve several additional purposes;
(iii) covers purely nominal expressions which have no kāraka value whatsoever;
(iv) covers verbal sentences by ascribing values such as 'agent' and 'patient' to the finite verb affixes;
(v) covers participial sentences without having to impute finite verbs into them; and finally
(vi) covers nominatives for indeclinables so that they may be eligible for proper morphophonemic and compounding operations etc.

While it thus clearly appears from the above discussion that Pāṇini's original system offers a theoretically more satisfactory and wider coverage of Sanskrit sentences, it must also be admitted that Kātyāyana's ideas about the sentence and the assumption of a finite verb such as *asti* were accepted by Patañjali, and therefore by the later tradition, and greatly influenced the evolution of the philosophical positions held by later Pāṇinian grammarians.

8. Patañjali's views on the sentence

8.1. Here I shall briefly review the evidence in the Mahābhāṣya of Patañjali. So far, Devasthali, Bronkhorst, and others have generally argued that Kātyāyana

and Patañjali held the same view, and the passages from the Mahābhāṣya referred to so far in this paper would seem to support that conclusion. In many places Patañjali advocates that

(a) there must a finite verb in the sentence;
(b) if there is no verb in the sentence-surface, then we must impute the verb *asti* into it;
(c) there cannot be more than one verb in a single sentence.

On closer inspection it appears that Patañjali's support for the first two notions is quite firm. In part, Devasthali (1974:209) attributes to Patañjali the passage *na hi kriyāvinirmuktaṁ vākyam asti* 'there is no sentence without a verb'; but as V. N. Jha (1980:90) shows, this statement is not found in the Mahābhāṣya. Still, the substance of the statement is very much in accord with Patañjali's attested statements.

But there is evidence to argue that Patañjali's support for the last notion (i.e. notion (c)) was only half-hearted. I base my conclusion on the fact that in many places Patañjali argues quite clearly that a finite verb can in fact be linked with another finite verb. I quote the passages in (18) and (19). (See also MB, Vol. I, p. 330.)

(18) pacati bhavati | ... pacādayaḥ kriyā bhavati-kriyāyāḥ kartryo bhavanti |
'Cooking is taking place ... In such sentences, actions like cooking become agents of the action of being.' (MB, Vol. I, p. 256)

(19) kriyāpi kriyayepsitatamā bhavati |
'Even an action can be the desired goal of another action.'
(MB, Vol. I, p. 277)

Based on these and other references in the Mahābhāṣya, later medieval writers like Giridharabhaṭṭa argue that according to Patañjali there could be more than one finite verb in a single sentence and that he differed from the opinion of Kātyāyana.[4] Giridharabhaṭṭa supports this conclusion by quoting Bhartṛhari. He finally states that according to the followers of Patañjali there are three kinds of sentences:[5]

(i) pure nominal sentences containing no finite verbs,
(ii) sentences having more than one finite verb, and
(iii) sentences containing nominals and finite verbs.

The same conclusions were reached by Giridharabhaṭṭa's preceptor, Gokulanātha Upādhyāya, in his Padavākyaratnākara (259-264), who explicitly refers (461) to the Mahābhāṣya as being ekatiṅ-vākya-vidveṣin 'opposed to the view that the sentence can have only one finite verb.' The last two assumptions of Giridhara and Gokulanātha can be supported on the basis of evidence from the Mahābhāṣya. Referring to the sentence in (20) below, Nāgeśa in his Paramalaghumañjūṣā (110) points out that here the two finite verbs become part of the same single sentence. Kauṇḍabhaṭṭa, referring to the same example, says that according to the Mahābhāṣya this is a single sentence with two finite verbs

(bhāṣyasiddhaikavākyatā, Vaiyākaraṇa-bhūṣaṇa-sāra p. 47). The commentary Prabhā on the Vaiyākaraṇa-bhūṣaṇa-sāra (p. 47) makes it clear that Patañjali does not directly tell us that (20) is a single sentence, but that passages in the Mahābhāṣya such as the ones quoted above suggest this conclusion. (See also Dikshit 1980.) Thus, the traditions of later grammarians and Naiyāyikas concur that Patañjali accepted the presence of more than one verb in a single sentence. However, the opinion of Giridhara and Gokulanātha that Patañjali accepted pure nominal sentences without the ellipsis of *asti* cannot be supported in light of the known evidence from the Mahābhāṣya.

(20) paśya mṛgo dhāvati
'Look, the deer is running.'

8.2. The gist of Patañjali's views on the sentence, then, is that for him there must be a verb in a sentence, but that there could be more than one verb in a single sentence. This understanding of Patañjali's views distinguishes his ideas from those of Pāṇini and Kātyāyana, and allows us to see the continuum of changing ideas in the early Pāṇinian tradition. To the extent that Patañjali supports Kātyāyana's notion that there must be a finite verb in a sentence, he differs from Pāṇini. However, to the extent that he allows the semantic and syntactic linking of several finite verbs into a single sentence, he agrees with Pāṇini and differs from Kātyāyana.

Thus, we must distinguish between passages where Patañjali is basically explaining Kātyāyana's notion that there can be only one verb in a sentence, from those passages where he offers his own view that verbs can indeed be semantically and syntactically linked. In example (21) below, Patañjali cannot find any link between the two verbs. However, as for (18), he says that the action of cooking is the agent of the verb *bhavati*. This relationship is identical with the relation that can exist between an action expressed by a verbal noun such as *pāka* to the verb *vartate* in *pāko vartate* 'cooking is going on'. Here, Patañjali admits that the action represented by the verbal noun is the agent of the verb, and he uses the word samavāya to characterize this relationship.[6]

(21) pacati paṭhati
'X is cooking, X is studying.'

In more than one passage, Patañjali has shown that one action can be syntactically and semantically linked with another action. By looking at all of these, one can draw the following conclusions: For Patañjali, the two actions expressed in (21) were not semantically and syntactically directly related; that is, one action was not a kāraka of the other action. However, such a kāraka relation between two actions obtained in examples like (18) and (20). Examples like (18) and (20) represented single sentences for Patañjali, while the type (21) probably did not. In general, then, Patañjali obviously was not opposed to allowing the possibility of a semantic and syntactic relationship between two finite verbs. This view is indeed closer than Kātyāyana's to the position we have reconstructed for Pāṇini, though not identical in every respect.

9. Conclusions

The results of the present discussion can be tabulated as in Table I below. A more detailed evaluation of the theoretical implications of these different notions of sentence, and a study of the probable causes for the observed shifts in position, will be taken up in a separate monograph.

	Pure nominal sentence	Finite verb	Plurality of verbs in a single sentence
Pāṇini	Possible	Possible	Possible
Kātyāyana	Not possible	Necessary	Not possible
Patañjali	Not possible	Necessary	Possible

TABLE I: The notion of sentence in Pāṇini, Kātyāyana, and Patañjali: Similarities and differences

NOTES

[1]The larger monograph has since appeared as Deshpande 1987.

[2]Vārttika 13 on P.2.1.1: samarthanighāte hi samānādhikaraṇa-yukta-yukteṣūpsaṁkhyānam asamarthatvāt, and Vārttika 10: samānavākye nighāta-yuṣmad-asmad-ādeśāḥ.

[3]Kātyāyanas tu na prātipadikārthe prathamā ... api tu abhihitakārakatvam eva prathamārthaḥ | ... yatrāpi kriyāpadāśravaṇaṁ tatrāpi 'astir bhavantī' 'ty anenādhyāhartavyam. Bhāṭṭa-tantrarahasya, pp. 79-80.

[4]See: phaṇibhāṣyakṛtas tu ekatiṅ vākyam iti nānumanyante | ... anekatiṅantam apy ekaṁ vākyaṁ manyante | (Vibhaktyarthanirṇaya p. 65).

[5]Evaṁ subantasamudāyas tiṅantasamudāyaḥ subantatiṅantobhayasamudāyaś ca trividham vākyam ... iti mahābhāṣyānusāriṇaḥ (Vibhaktyarthanirṇaya p. 67).

[6]Kṛdabhihito bhāvo dravyavad bhavati | kim idaṁ dravyavad iti | dravyaṁ kriyayā samavāyaṁ gacchati | kaṁ samavāyam | dravyaṁ kriyābhinirvṛttau sādhanatvam upaiti | tadvac cāsya bhāvasya kṛdabhihitasya bhavati | pāko vartate iti | (MB, Vol. II, p. 57).

Pāṇinian reflections on Vedic infinitives: On the meaning of *tumartha*

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1. Introduction

In the past few decades, there has been a controversy over whether Pāṇini's grammar can be used as a tool for the interpretation of the Vedic texts. Western scholars tend to claim that it cannot be used in this way, while Indian scholars generally argue that it is indeed a valuable tool for Vedic interpretation. In this paper, I wish to pursue the reverse question: What is the value of Vedic data in interpreting Pāṇini's grammar? While I generally agree with the view that Pāṇini's grammar is inadequate in its description of the Vedic language, I would like to examine to what extent a study of the Vedic language may help us arrive at a qualitatively superior understanding of Pāṇini's grammar. Traditional commentators on Pāṇini's grammar have generally paid much less attention to his rules which apply to the Vedic language, since their primary focus is on the classical Sanskrit usage. A study of Vedic syntax allows us to see the full potential of some of Pāṇini's rules. Similarly a study of Vedic usage allows us to locate the exact inadequacies of Pāṇini's grammar. This approach may reveal that Pāṇini's own rules of Vedic are sometimes guided by linguistic usage closer to his own time. This paper discusses these issues by focussing on Pāṇini's rules relating to Vedic infinitives. The conclusion of the paper is that a study of Vedic usage in relation to Pāṇini allows us to have a more realistic interpretation of his rules and a better perception of their underlying formative forces.

2. Older interpretation of *tumartha* in Pāṇini

2.1. The expression tumartha occurs in two rules of the Aṣṭādhyāyī. In P 2.3.15 (tumarthāc ca bhāvavacanāt), the word *tumartha* is a bahuvrīhi compound, meaning 'a word which has the (same) meaning as the affix *-tum*.' In P 3.4.9 (tumarthe se-sen-...) the word *tumartha* is used as a tatpuruṣa compound designating 'the meaning of *-tum*'. This rule says that the Vedic infinitive affixes listed in the rule occur in the meaning of *-tum*. The obvious question then is what is the meaning of *-tum*?

In previous work (Deshpande 1980) I discussed these questions at length. There I pointed out that as far as the syntactic meaning of the affix is concerned, *–tum* denotes the agent (kartṛ) for Pāṇini. I also indicated that for Kātyāyana, the meaning of *-tum* may be agent (kartṛ) or object (karman) depending on whether

the main verb in the construction is active or passive. I further showed that for Patañjali the meaning of *-tum* was invariably the notion of action (bhāva). I argued at length why the views of Kātyāyana and Patañjali do not seem to represent the view of Pāṇini that *-tum* denotes the syntactic meaning agent (kartṛ). However, an affix such as *-tum* denotes not only the notion of agent, it also denotes other notions, such as one action being the purpose of the other action (kriyāyāṁ kriyārthāyām in P 3.3.10). Such other meanings must be included in the meaning of *-tum* in interpreting the expression *tumartha* in Pāṇini.

2.2. My earlier argument was as follows. P 3.3.10 (tumun-ṇvulau kriyāyāṁ kriyārthāyām) prescribes the affixes *-tumUN* and *-NvuL* after verb roots to express the idea of an action being the purpose of another action. Then the next rule, P 3.3.11 (bhāvavacanāś ca) says that words denoting action (bhāva) may also occur in the meaning of one action being the purpose of another. I then connected P 3.3.11 to the use of the word *tumartha* in P 2.3.15 (tumarthāc ca bhāvavacanāt) and interpreted the rule to mean that a word denoting action (bhāva), if it is in the meaning of *-tum*, namely if it denotes the meaning of one action being the purpose of another action (kriyāyāṁ kriyārthāyām), then one should add a dative affix after such a word. The commentary Kāśikāvṛtti on P 2.3.15 makes the same connection of this rule with P 3.3.11, quoting the example *pākāya vrajati* 'goes for the purpose of cooking'. Thus, through the use of the expression *tumarthāt* in P 2.3.15, Pāṇini was believed to have established the equivalence of the infinitive of purpose with the dative of action nouns. All the examples cited for this rule by the Kāśikāvṛtti are examples involving one action being the purpose of another.

2.3. The same interpretation of the word *tumartha* is generally carried forward in the rule P 3.4.9 (tumarthe se-sen-ase-asen-kse-kasen-adhyai-adhyain-kadhyai-kadhyain-śadhyai-śadhyain-tavai-taveṅ-tavenaḥ): '(In Vedic), the affixes *-se, -seN, -ase, -aseN, -Kse, -KaseN, -adhyai, -adhyaiN, -Kadhyai, -KadhyaiN, -Śadhyai, -ŚadhyaiN, -tavai, -taveN*, and *-taveN* are used in the meaning of *-tum*.' In Deshpande 1980:54, I stated, 'All the affixes taught in this rule are affixes deriving Vedic dative infinitives and share with the affix *-tumUN* the meaning of one action being the purpose of another action expressed by the main verb.' The Kāśikāvṛtti does not significantly add to our knowledge of the expression *tumarthe*, and following Patañjali's opinion, it simply says that *tumarthe* in this rule refers to action (bhāva) and that all these affixes occur in the sense of action. I have pointed out previously that such an interpretation is grossly inadequate and must be rejected. In their explicit discussion of these Vedic forms, the commentators generally fail to explain the infinitival value of these Vedic forms, though some paraphrase them with *-tum*-infinitives.

3. Necessity for a new interpretation

3.1. It is clear, however, that the expression *tumartha* needs further clarification in the light of evidence from Vedic texts. Consider the following usages:

(1) śravaṇāyāpi bahubhir yo na labhyaḥ (KU 2.8)
Lit: 'He (the Self) who is not to be obtained even for hearing by many ...'

(2) na bāhyān śabdān śaknuyād grahaṇāya (BAU 2.4.7)
'One may not be able to grasp the external sounds.'

(3) alaṁ vā are idaṁ vijñānāya (BAU 2.4.13)
'It is enough, my dear, to know this.'

3.2. While modern scholars including Delbrück (1888) have wondered whether forms like *grahaṇāya* in examples like (2) above are not just verbal nouns, but infinitives, Pāṇini does not prescribe an infinitive affix which would give us these forms. From the Pāṇinian point of view, these would have to be datives of action nouns. We can emphasize that in the examples above, there is no purposive relation between actions which would be required for Pāṇini's kriyāyāṁ kriyārthāyām (3.3.10) to apply: While a modern interpreter may be able to read the nouns or pronouns in these usages as purposives depending on non-action verbs or non-verbs, the relation between the **actions** (in Pāṇini's sense) is not purposive. This is clear even in the case of *-tum*-infinitives in conjunction with verbs like *śak, jñā, labh*. The very fact that Pāṇini needed to formulate separate rules, P 3.4.65 (śaka-dhṛṣa-jñā-glā-ghaṭa-rabha-labha-sahā-rhāsty-artheṣu tumun) and P 3.4.66 (paryāptivacaneṣv alam-artheṣu), to take care of infinitives in conjunction with such verbs and with *alam* indicates that he did not view the relation between actions in such constructions as being purposive.

These added rules in Pāṇini are needed to take care of infinitival constructions such as (1'), (2'), and (3'), which are equivalent to the verbal-noun constructions (1), (2), and (3) and cannot be explained within the Pāṇinian system by rule 3.3.10 (tumun-ṇvulau kriyāyāṁ kriyārthāyām), but must be accounted for by the just-stated rules P 3.4.65-66.

(1') śrotuṁ labhyaḥ (= śravaṇāya labhyaḥ)

(2') śaknuyād grahī tum (= śaknuyād grahaṇāya)

(3') alaṁ vijñātum (= alaṁ vijñānāya)

If one takes the expression *tumarthāt* in P 3.3.15 (tumarthāc ca bhāvavacanāt) as referring exclusively to *kriyāyāṁ kriyārthāyām* in P 3.3.10, then one would have to say that there is no real Pāṇinian way to derive the constructions (1), (2), and (3). This would be all the more embarassing in view of the fact that Pāṇini does have independent rules to take care of the paraphrase constructions (1'), (2'), and (3').

4. New interpretation of *tumartha*

4.1. This is the point where one needs to go beyond the traditional commentators and see if there is another viable interpretation of P 2.3.15 (tumarthāc ca bhāvavacanāt). I would like to suggest that the expression *tumartha* in this rule is inclusive of the meaning *kriyāyāṁ kriyārthāyām*, but not limited to it. It is inclusive of all rules which prescribe the affix *-tum*, and all the variety of the meanings of the affix *-tum*. Such an interpretation of P 2.3.15 (tumarthāc ca

bhāvavacanāt) allows us to explain examples (1), (2) and (3), in a routinely Pāṇinian manner.

4.2. We can now take this new inclusive interpretation of the term *tumartha* to P 3.4.9 (tumarthe se-sen-ase-asen-kse-kasen-adhyai-adhyain-kadhyai-kadhyain-śadhyai-śadhyain-tavai-taveṅ-tavenaḥ) which provides us with the Vedic infinitival affixes *-se, -ase, -adhyai, -tavai*, and *-tave* (with various different diacritics for deriving differently accented forms etc.). All these affixes are said to occur in the meaning of *-tum*. This new inclusive meaning of the term *tumartha* 'meaning of *-tum*' will allow us to derive a great variety of Vedic infinitival usages, which otherwise were beyond the scope of the rule. Consider the following usages:

(4) urum hi rājā varuṇaś cakāra sūryāya panthāṃ anvetavā u
(TS 1.4.4.5)
'Lord Varuṇa made a wide path for the sun to follow.'

(5) brahmāṇa indraṁ mahayanto arkair avardhann ahaye hantavā u
(TS 1.6.12)
'The priests, praising Indra with their prayers, nourished him to kill the dragon.'

(6) ahaṁ rudrāya dhanur ātanomi brahmadviṣe śarave hantavā u
(AV 4.30.5)
'I extend the bow to Rudra to kill the demon Śaru, the hater of the incantations.'

4.3. Examples (4), (5), and (6) can be explained even in the narrower interpretation of the term *tumartha* restricted to the sense of one action being the purpose of another (kriyāyāṁ kriyārthāyām). However, consider examples (7), (8), (9), and (10) below, in which we have Vedic infinitives in conjunction with main verbs of desire, knowledge, ability, etc. In these constructions, the relation between actions is not purposive, and hence these usages would not be explainable in the narrow interpretation of the expression *tumartha*.

(7) manye vāṁ ... yajadhyai (RV 7.2.7)
'I think of worshipping you.'

(8) te hi putrāso aditer vidur dveṣāṁsi yotave (RV 8.18.5)
'Those sons of Aditi know how to keep our enemies away.'

(9) tā vāṁ vastūny uṣmasi gamadhyai (RV 1.154.6)
'We wish to go to your dwelling places.'

(10) vaṣṭi yajadhyai (RV 6.11.3)
'X wishes to sacrifice.'

4.4. Similarly, we find constructions such as (11):

(11) īśvarau janayitavai (BAU 6.4.14-18)[1]
'Those two are able to produce (the desired child).'

This use of *īśvara* with an infinitive in *-tavai* is somewhat rare, since we normally get *īśvara* with the genitive infinitive in *-tos* or *-as*; cf. e.g. example (15) below. In any case, this usage would be equivalent to the classical usage *samarthau*

janayitum or *janayitum alam* derivable through P 3.4.65 (śaka-dhṛṣa ...) or P 3.4.66 (paryāptivacaneṣv alam-artheṣu). Thus, while example (11) does not have a purposive relationship between two actions, it still quite clearly has the meaning of *-tum*, i.e., it can be paraphrased with a *-tum*-infinitive.

4.5. The expression *tumarthe* in P 3.4.9 (*tumarthe se-sen* ...) continues into the following rules:

P 3.4.10: prayai-rohiṣyai-avyathiṣyai.
(Pāṇini provides these three nipātanas 'words without any explicit derivation' in the meaning of *-tum* (= *tumarthe*).)

P 3.4.11: dṛśe-vikhye ca.
(These two additional nipātanas are provided in the meaning of *-tum*.)

P 3.4.12: śaki ṇamul-kamulau.
'A verb root, occurring in conjunction with the verb *śak*, takes the affixes *ṆamUL* and *KamUL* (= *-am*, with certain diacritics) in the meaning of-*tum*.'

P 3.4.13: īśvare tosun-kasunau.
'A verb root, occurring in conjunction with the word *īśvara*, takes the affixes *tosUN* and *KasUN* (*-tos* and *-as*, with certain diacritics) in the meaning of-*tum*.'

The Kāśikāvṛtti cites examples for P 3.4.10 and P 3.4.11 which have infinitives of purpose, and they are paraphrased as such with a *-tum*-infinitive of purpose:

(12) prayai (= prayātum) devebhyaḥ (RV 1.142.6)
'In order to reach the gods.'

(13) dṛśe (= draṣṭum) viśvāya sūryam (RV 1.50.1)
'For everyone to see the sun.'

Obviously such instances can be taken care of in the narrow interpretation of *tumarthe*. On the other hand, the examples cited by the Kāśikāvṛtti for P 3.4.12 and P 3.4.13 are indeed not infinitives of purpose, though they are clearly paraphrased with *-tum*-infinitives:

(14) agniṁ vai devā vibhajam (= vibhaktum) nāśaknuvan (MS 1.6.4)
'The gods indeed were unable to divide Agni.'

(15) īśvaro 'bhicaritoḥ (= abhicaritum)[1,2]
'He is able to attack with black magic.'

Thus, it is clear that all these Vedic infinitives considered so far are used in the meaning of *-tum*, and can be — and have been — traditionally paraphrased with *-tum*-infinitives. However, they do not all convey the sense of purpose, but cover the entire range of the classical *-tum*-infinitive.

5. *Tumartha* different from *kṛtyārtha*

The continuity of the word *tumarthe* from P 3.4.9 (*tumarthe se-sen* ...) is broken by the new condition *kṛtyārthe* in the following rule:

P 3.4.14: kṛtyārthe tavai-ken-kenya-tvanaḥ.

This rule states that the affixes *-tavai*, *-KeN*, *-Kenya*, and *-tvaN* are added to a verb root in the meaning of a *kṛtya* (= gerundive) affix.[3] The Kāśikāvṛtti on this rule cites Vedic examples for these affixes and paraphrases them not with *-tum*-infinitives, but with gerundive *-tavya*-forms:

(16) anvetavai (= anvetavyam) (RV 7.44.5)
(17) paridhātavai (= paridhātavyam) (AV 2.13.2)
(18) paristaritavai (= paristaritavyam) (KS 32.7)
(19) nāvagāhe (= nāvagāhitavyam) (Uncertain source)
(20) didṛkṣeṇyaḥ (= didṛkṣitavyaḥ) (RV 1.46.5)
(21) śuśrūṣeṇyaḥ (= śuśrūṣitavyaḥ) (TA 4.1.1)
(22) kartvam (= kartavyam) haviḥ (AV 1.4.3)

The above paraphrases indicate that the Pāṇinian grammarians did not feel that they could paraphrase constructions generated by P 3.4.14 (kṛtyārthe tavai...) with a *-tum*-infinitive. This coincides with the discontinuance in this rule of the condition *tumarthe* and the enunciation of the new condition *kṛtyārthe*. This condition continues into the next rule which prescribes the nipātana form *avacakṣe* in the meaning of a kṛtya (= gerundive) affix:

P 3.4.15: avacakṣe ca.

The Kāśikāvṛtti commentary on this rule quotes the following example and paraphrases it with a gerundive:

(23) ripuṇā nāvacakṣe (= avakhyātavyam) (VS 17.93)
'(These words) are not to be faulted by our enemy.'

Significantly, the instrumental case of the agent word *ripuṇā* demonstrates that the form *avacakṣe* is passive, i.e. denotes object (karman) or action (bhāva). This fits the pattern of a gerundive and not of a *-tum*-infinitive.

6. *Tumartha* different from *bhāva-lakṣaṇa*

The condition *kṛtyārthe* from P 3.4.14 (kṛtyārthe ...) is discontinued by the condition *bhāva-lakṣaṇe* in the next rule:

P 3.4.14: bhāvalakṣaṇe stheṇ-kṛñ-vadi-cari-hu-tami-janibhyas tosun.

This rule prescribes the affix *-tosUN* after the listed verbs in order to indicate when another action takes place (bhāva-lakṣaṇe). Note that Pāṇini uses the same term *bhāva-lakṣaṇa* in the rule that prescribes the locative absolute, P 2.3.37 (yasya ca bhāvena bhāvalakṣaṇam). It is clear that the affix *-tosUN* prescribed by P 3.4.14 is used neither in the meaning of *-tum*, nor in the meaning of a kṛtya-affix. Thus it cannot be rephrased either by a *-tum*-infinitive or by a *-tavya*-formation. The Kāśikāvṛtti on this rule quotes examples such as:

(24) ā saṁsthātor vedyāṁ śerate (KS 11.6)
'Until the completion, they sit on the altar.'

The Kāśikāvṛtti, it must be kept in mind, does not see any conflict between the condition *tumarthe* and *kṛtyārthe* or *bhāvalakṣaṇe*, since it follows Patañjali in interpreting *tumarthe* to mean 'in the meaning of action'. It continues the condition *tumarthe* even into rules prescribing the gerund (or absolutive) affix *-Ktvā*.

However, as shown in Deshpande 1980, this is an unacceptable procedure and a misrepresentation of Pāṇini.

7. Syntactic differences

The above discussion brings up another point, namely that Pāṇini does not assume that all items which modern scholars consider Vedic infinitives are used in the meaning of *-tum*. Some are employed in the meaning of *-tum*, while others have the meaning of gerundives, and still others are governed by the condition *bhāvalakṣaṇe*. This is a significant distinction, not only semantically, but also syntactically. Semantically, the distinction manifests itself in terms of possible paraphrases: While some Vedic infinitives can be paraphrased with *-tum*-infinitives, others can be paraphrased only with *-tavya*-forms or with other constructions.

On the level of syntax, too, the distinction is significant. According to P 3.4.70 (tayor eva kṛtya-kta-khal-arthāḥ), the kṛtya (= gerundive) affixes occur in the meanings action (bhāva) and object (karman). In general terms, they are syntactically passive items. On the other hand, I have demonstrated elsewhere (Deshpande 1980) that *-tum* denotes the syntactic meaning agent (kartṛ). This difference naturally leads to different case assignments for words expressing major participants in the action, such as the agent and the object.

Such a distinction can be demonstrated for the two different functions of the affix *-tavai*. Consider the following example:

(25) naiṣā gavyūtir apabhartavā u (RV 10.14.2)
'This pasture is not to be taken (from us).'

Delbrück (1888: 415) translates this passage as 'dieses Weideland ist nicht zu rauben' ('this grazing land is not to be robbed') and comments: 'Der Infinitiv fungirt in einem Satze mit *na* wie ein Verb fin.' ('In a sentence with *na* the infinitive functions like a finite verb'). Note that the infinitive form *apabhartavai* of this example could be easily paraphrased by the gerundive *apabhartavyā*. Further, observe the nominative case of the object (karman), namely *gavyūtiḥ*. All these facts would indicate that this infinitive form occurs in the meaning of a form with kṛtya-affix.

On the other hand, in example (11) above, i.e. *īśvarau janayitavai*, the form *janayitavai* can be paraphrased by the infinitive forms *janayitum* or *janayitoḥ*, but not by a gerundive *-tavya*-formation. Thus, the form *janayitavai* occurs in the meaning of *-tum*, and not of a kṛtya-affix. Moreover, note the nominative of the agent (kartṛ), *īśvarau*. This case marking would not be possible if the *janayitavai* of this construction were a passive form.

Contrast this nominative of the agent with the instrumental of the agent in example (26) below, from Patañjali's Mahābhāṣya (Vol. I, p. 2). Here, the *-tavai*-forms could easily be rendered by the gerundive *-tavya*-forms *mlecchitavyam* and *apabhāṣitavyam*.

(26) tasmād brāhmaṇena na mlecchitavai nāpabhāṣitavai
'Therefore, a brahmin should not speak like a mleccha and should not use degenerate forms of speech.'

For further contrast, consider the following early classical usages of *-tavai* in the meaning of *-tum*:

(27) oṣadhīnāṁ mūlāny ucchettavai brūyāt (KŚS 2.6.3)
'He should give out the call to cut out the roots of the plants.'

(28) brāhmaṇaṁ tarpayitavai brūyāt (KŚS 3.8.27)
'(The adhvaryu) should ask (the sacrificer) to feed a brahmin.'

(29) goḥ payo 'dhiśrayitavai brūyāt (KŚS 4.13.10)
'(The sacrificer) should give a call (to the adhvaryu) to heat the milk of a cow.'

(30) brāhmaṇaṁ pāyayitavai brūyāt (KŚS 4.13.11)
'(The adhvaryu) should give a call (to the sacrificer) to offer the officiating priest (this milk) to drink.'

The above examples are offered to illustrate how a *-tavai*-construction in the meaning of *-tum* is syntactically different from a *-tavai*-construction in the meaning of kṛtya-affixes. The first is an active construction, while the second is passive.

8. Conclusions

Based on the above evidence, one can conclude that the term *tumartha* (of *tumarthāt* in P 2.3.15 and *tumarthe* in P 3.4.9) was not restricted to the context of one action being the purpose of another (kriyāyāṁ kriyārthāyām), but included the entire range of the usage of *-tum*. Thus the term *tumartha* must now be interpreted in a more inclusive sense, referring to all uses of *-tum*. In short, the word *tumarthe* in P 3.4.9 must be translated as 'to serve the same purpose as *-tum*'.

A second result of the above investigation is the determination that in Pāṇini's grammar only some of the Vedic infinitives are interpreted as occurring in the meaning of *-tum*, while others occur in the meaning of gerundives etc. Such an interpretation of Pāṇini seems to be justified in the light of the Vedic evidence, as well as on internal grounds. This is not to say that Pāṇini's rules cover the Vedic data fully and adequately. There are significant holes in his coverage of Vedic infinitives. However, we must give Pāṇini's rules an interpretation which they rightly deserve in the context of their historical setting.

Notes

[1]Hans Henrich Hock (personal communication) suggests that the *īśvara*-construction in some contexts may need to be glossed as '(be) liable to', rather than '(be) able to'. I agree with this in general, though I believe the construction, originating with the use of the finite verb *īś*, is used primarily in the sense of 'ability' and was later extended to the meaning of 'be liable to'.

[2]On the source of the passage *īśvaro 'bhicaritoḥ*, Oertel (1938:55-6) states the following: 'K. 37.14 *īśvaro vā abhicaro 'śāntaḥ* ... So v. Schroeders Text ohne Variante. Caland, ZDMG. LXXII 19 konjiziert *etoḥ*. Das pw. s.v. *abhicaritoḥ* konjiziert wenig wahrscheinlich *abhicaritoḥ* für *abhicaro*.' (' KS 37.14 *īśvaro vā abhicaro 'śāntaḥ* ... Thus [according to] von Schroeder's text, without [indication of] variants. Caland (Zeitschrift der Deutschen Morgenländischen Gesellschaft 72.19) conjectures *etoḥ*. The St. Petersburg Dictionary [of Böhtlingk & Roth] conjectures *abhicaritoḥ* for *abhicaro*, with little [semblance of] probability.') The VVRI Vedic Concordance does not list *abhicaritoḥ*, but the fact that the Kāśikāvṛtti cites the form probably indicates that some version of this passage had the form *abhicaritoḥ*.

[3]For recent discussions of Vedic *-tavai*-constructions and their relationship to gerundives, cf. Jamison 1984 and Hock 1988. [Editor's note.]

Possessive agents in Sanskrit?*

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1. As is well known, in many modern South Asian languages, dative-marked experiencer noun phrases (NPs) exhibit subject properties in respect to such phenomena as word order, absolutive formation, and reflexivization. Compare for instance the Hindi data in (1) and the discussion in Kachru, Kachru & Bhatia 1976, Wallace 1985. Thus, in (1a), the dative NP *laṛke ko* occupies first position in unmarked clause order, occurring before the nominative-marked *dost*, just as the nominative subject NP takes first position and precedes the object in (2a). In (1b), the dative NP controls absolutive (or 'conjunctive-participle') formation, just as does the nominative-marked subject in (2b). And in (1c), the reflexive pronoun refers to the dative NP, just as it does to the subject NP in (2c).

(1) (a) laṛke ko dost yād āe
Dat Nom.
'The boy remembered (his) friends.'

(b) skūl kā maidān dekh kar laṛke ko dost yād āe
abs. Dat.
'(The boy/*the friends) having seen the school grounds, the boy remembered (his) friends.'

(c) laṛke ko apne dost yād āe
Dat. refl.
'The boy remembered his (own) friends.'

(2) (a) laṛkā dostoṁ ko dekh rahā hai
Nom. O
'The boy sees (his) friends.'

(b) ghar ā kar laṛkā dostoṁ ko dekh rahā hai
abs. S O
'(The boy/*the friends) having come home, the boy sees (his) friends.'

(c) rājā mātā ko apne bacce de rahā hai
S O refl.
'The king gives the mother his/*her own children.'

It is also well known that other 'oblique' noun phrases, especially possessor NPs, exhibit similar subject properties. However, their precise behavior is less commonly discussed in the literature. In Hindi, possessor NPs, marked by

various postpositions (cf. Kachru 1982 for some details, including regional variation), share with 'dative-subject' structures clause-initial position in unmarked structures, as well as absolutive control; cf. (3a,b). And as the second example under (3b) shows, the possessor NP controls absolutive even if not specified. Control of reflexivization, on the other hand, does not seem to be favored (cf. (3c)). The reason perhaps is that structures of this type, with the genitive postposition *kā/kī/ke* can — if the possessed NP would semantically qualify as antecedent for the reflexive — always be interpreted such that the possessed NP is the subject of the clause; cf. the second example under (3c). Speakers seem to prefer alternative (unambiguous) structures of the type (3d), or sentences without any overt pronoun (3e).

(3) (a) merā ek laṛkā hai
Poss. Nom. is
'I have one boy.'
(Lit. 'Of me (there) is a boy.')

(b) tīn aur kitābeṁ xarīd kar us kī pāṁc kitābeṁ haiṁ
abs. Poss.
'Having bought three more books, (s)he has five books.'
(Lit. '... of her/him are five books.')
vahīṁ baiṭh kar bāteṁ hoṁgī (hamārī)
'Let's sit down there and talk.'
(Lit. 'Having sat down there, (our) talk will be.')

(c) us kī ek pustak apne ghar meṁ hai
Poss. refl.
??/*'He$_i$ has a book in his$_i$ house.'
us kā ek naukar apne ghar meṁ hai
Poss. refl.
??/*'He$_i$ has a servant in his$_i$ house.'
OK: 'His servant$_j$ is in his$_j$ house.'

(d) us kī ek pustak us ke ghar meṁ hai
Poss. non-refl.
'He$_i$ has a book in his$_i$ house.'

(e) us kī ek pustak Ø ghar meṁ hai
Poss. Ø
'He has a book in (his) house.'

Now, some of the verbs which are construed with dative experiencers in the modern South Asian languages are found with dative or other oblique experiencers also in Sanskrit; cf. for instance example (4) with its exact Hindi parallel in (5). Moreover, like Hindi, Sanskrit has possessor constructions corresponding to English 'have' structures in which the possessor NP is marked in an oblique case which, in Sanskrit, usually is the genitive; cf. (6) which corresponds closely to (3a) above..

(4) tasmā upakhyānaṁ na rocate
Dat.
'The story does not please him/he does not like the story.'

(5) us ko kahānī nahīṁ pasand hai
Dat.
'The story does not please him/he does not like the story.'

(6) mama ◡ ekaḥ putro (vartate/asti)
Poss. Nom. (is)
'I have one boy.'
(Lit. 'Of me (there) is a boy.')

In several recent papers, Hook (e.g. 1976, 1984) has attempted to show that the oblique noun phrases in Sanskrit structures of this sort exhibit the same subject properties as the corresponding modern South Asian ones. His strongest argument in favor of such an 'oblique-subject' interpretation comes from (4'), in which a Sanskrit absolutive construction is controlled by the dative experiencer, just as it is in the corresponding Hindi construction (5').

(4') śrutvā tv idam upākhyānam ... anyan na rocate [tasmai]
abs Dat.
'(He) having heard this story, another (story) doesn't please him/he does not like another (story).' (MBh.1.2.236)

(5') yah kahānī sun kar dūsrī pasand nahīṁ āegī [us ko]
abs. Dat.
'(He) having heard this story, another (story) doesn't please him/he does not like another (story).'

As Hook notes, there is however a certain difficulty with assuming that constructions like (5') contain oblique subjects or, as I will be referring to them from now on, oblique agents: Through the sūtras given in (7) Pāṇini's grammar correctly provides for the case of the dative experiencer in (4/4'). But the first of these sūtras classifies the experiencer NP as sampradāna 'recipient', not as a kartṛ = 'agent' (i.e. 'underlying or logical subject'). The genitive suffix of possessor NPs likewise is not accounted for as agent marking. Rather, it is introduced by the general default rule 2.3.50 (ṣaṣṭhī śeṣe). In Pāṇini's grammar, however, only agents (in his technical sense) can control absolutive formation (except for certain quasi-lexicalized expressions): As the formulation in (8) shows, the introduction of the absolutive ending requires coreferentiality between the agents of the absolutive and the matrix clause.

(7) rucyarthānāṁ prīyamāṇaḥ [sampradānam] (Pāṇ. 1.4.33)
caturthī sampradāne (Pāṇ. 2.3.13)
(≠ kartṛ 'agent/underlying subject')

(8) samānakartṛkayoḥ pūrvakāle [ktvā] (Pāṇ. 3.4.21)
≈ 'The absolutive is used in reference to earlier time, provided the agents are coreferential.'

Hook suggests that Pāṇini's formulation may have been deficient and that oblique agent constructions were perfectly grammatical in Sanskrit. However, in order to establish that Pāṇini was wrong and that Sanskrit structures of the type (4/4') and (6) did in fact contain oblique agents, we need cogent and uncontrovertible evidence that their oblique NPs exhibit genuine subject

properties. Such evidence should above all come from absolutive formation, reflexivization, and word order, for these are at least statistically valid indicators that a given NP is an agent, i.e., is a subject or has been one at some point in the derivation; cf. Hock 1982b, 1983b, 1986.

Moreover, evidence of this sort will have to consist of more than just a few examples. For just like the modern South Asian languages (see e.g. Wallace 1985), Sanskrit offers a fair number of 'sloppy' absolutive structures, that is, occasional structures in which absolutives are controlled by constituents that do not otherwise exhibit subject properties. Compare for instance (9), where in (a) an absolutive is controlled by a causee, in (b) by an indirect object, in (c) by a goal or beneficiary, and in (d) by a constituent not found in the matrix clause. Similar 'sloppy' structures are found in reflexive constructions, cf. Hock 1983b. In such structures pragmatic considerations of saliency seem to override the normal syntactic restrictions on absolutive formation. Structures of this sort are grammatically completely unsystematic and unpredictable; moreover, they are statistically exceedingly rare. And as Wallace observes, when confronted with such structures, speakers tend to disavow them or to rephrase them so as to make them grammatically acceptable.

(9) (a) paścād evaināṁ parītya vṛṣṇā ... adhidrāvayati
abs. causee
(ŚB 1.9.2.14)
'He makes the bull mate with her, (the bull) having approached her from the back.'

(b) dvija siprānadīm gatvā tubhyam ahaṁ mantraṁ dāsyāmi
abs. Dat. = IO (Vet.92.20-1)
'O brahmin, I will give a mantra to you, (you) having gone to the river Siprānadī.'

(c) svāgataṁ svān adhīkārān prabhāvair avalambhya vaḥ ...
abs. Obl.=Dat.
(Kumārasambhava 1.8)
'Welcome to you who uphold your offices by power ...'

(d) te paśavaḥ ... oṣadhīr ... jagdhvā ⌣ apaḥ pītvā tata **eṣa** rasaḥ
abs. abs.
saṁbhavati (ŚB 1.3.1.25)
'The animals having eaten the plants, having drunk the waters, from that arises this essence.'

To exclude the possibility that constructions like (4/4') and (6) are examples of such 'sloppy' structures, we must establish two things. We must show that our oblique NPs exhibit subject properties **systematically**, not just with absolutives, but also in regard to word order and reflexivization. And we must demonstrate that — just as for nominative subjects — control of absolutive or reflexive formation by putative oblique agents is **regular**, not just occasional, and that clause-initial position is statistically predominant. Clearly, this requires

a large amount of relevant attestions; it cannot be accomplished on the basis of a few random citations.

As it turns out, an examination along these lines reveals considerable, and perhaps insurmountable difficulties for the assumption that dative-experiencer structures of the type (4/4'), as well as other similar structures with accusative or genitive experiencers, contain oblique agents. On the other hand, constructions of the type (6) offer much more persuasive evidence that their possessor NPs are in fact agents.

The difficulties surrounding the issue of oblique experiencers are discussed elsewhere in greater detail (Hock To Appear). They include a dearth of relevant data, the possibility of alternative accounts, the tendency for oblique experiencers to follow, rather than precede other constituents, and the fact that nominalizations provide positive counterevidence to the claim that these experiencers are oblique agents.

In this paper, I limit myself to discussing the question of whether Sanskrit possessor NPs are oblique agents. To this end I will in section 2 review independently established evidence for agenthood. This will be followed in section 3 by an examination of the extent to which putative 'agent structures' exhibit features of agenthood. Given the background information in sections 1 and 2, this examination can be kept quite brief. Section 4 will present conclusions, implications for other areas of linguistic research, as well as remaining problems.

2. By way of background information, let us review the criteria that have been independently established as evidence that constituents not marked in the nominative case can be considered agents.

2.1. One of these criteria has been mentioned several times, namely the fact that absolutives are controlled by agents. The examples in (10) show that this restriction is not just an artifact of Pāṇini's grammar: No matter whether the agent is marked nominative (in the active) or instrumental (in the passive), no matter what the relative ordering of agent (*janāḥ*/*janaiḥ* '(by) the people') and patient (*rājā*/*rājānam* 'the king'), or even whether the agent is specified or not (cf. examples (a-c) vs. (d)), the agent of the absolutive is coreferential with the agent of the matrix clause.

(10) (a) tatra gatvā janā rājānaṁ paśyanti
abs.
'(The people/*the king) having gone there, the people see the king.'

(b) tatra gatvā rājā janair dṛśyate
abs.
'(The people/*the king) having gone there, the king is seen by the people.'

(c) tatra gatvā janai rājā dṛśyate
abs.
'(The people/*the king) having gone there, the king is seen by the people.'

(d) tatra gatvā rājā dṛśyate
abs.
'(Somebody$_i$/*the king) having gone there, the king is seen (by somebody$_i$).'

2.2. A second criterion is reflexivization: Just as in the case of absolutive formation, reflexivization normally is controlled by agents, as in (11). And here again, the relative ordering of agents and patients or the specification or non-specification of agents does not seem to have any effect on the grammaticality of the constructions.

(11) (a) rājā striyaṁ svaṁ deśaṁ gamayati
refl.
'The king makes the woman go to his/*her (own) country.'

(b) rājñā strī svaṁ deśaṁ gamyate
refl.
'The woman is made to go to his/*her (own) country by the king.'

(c) strī svaṁ deśaṁ gamyate rājñā
refl.
'The woman is made to go to his/*her (own) country by the king.'

(d) strī svaṁ deśaṁ gamyate
refl.
'The woman is made to go to his$_i$/*her (own) country (by somebody$_i$).'

2.3. Now, there are occasional examples of 'sloppy' absolutives as in (9) above. However, as noted, these are grammatically unsystematic and unpredictable, as well as statistically rare. The case is similar for reflexivization. (In Hock 1983b I argued that exceptions are relatively more common in reflexivization than they are in absolutive formation. However, if the subsequent discussion is on the right track, the majority of apparent instances of 'sloppy' reflexivization turn out to be perfectly grammatical.)

Beside such occasional and fairly unsystematic instances of 'sloppy' absolutives or reflexives, there is a thoroughly systematic and freely attested set of apparent problems for claiming absolutive formation and reflexivization to be regularly controlled by agents. Consider the examples in (12) and (13).

(12) (a) (... devā agre vyajayanta)
tān vijitya yathalokam āsīnān indra etya abravīt ...
abs. abs.
(JB 1.156)
'(The gods first won.) To them$_i$, having won$_i$, sitting each one in his own world Indra$_j$, having come up$_j$, said ...'

(b) ity eva kāle śyenena anīya khādyamānasya sarpasya
abs.
garalaṁ taddravye nipatitam (Vet. 76.11.13)

'At that very time, the poison of a snake$_i$ being eaten by a hawk$_j$, (the hawk$_j$) having carried (it$_i$) off, fell in his food.'

(13) (a) rājā 'pi ... ātmānaṁ vyāpādayitum udyataḥ prasannayā
refl.
caṇḍikayā niṣiddhaḥ (Vetikā 75.15-17)
'And the king$_i$ ... setting out to kill himself$_i$ was prevented by the propitiated Durgā.'

(b) sve sve dharme niviṣṭānām ... rājā sṛṣṭo 'bhirakṣitā (M 7.35)
refl.
'The king has been created the protector of (all$_i$) performing their$_i$ various duties.'

In (12a) we find two absolutives, one (*etya* 'having come up') — as expected — controlled by the agent of the sentence (*Indra*), but the other (*vijitya* 'having won') controlled by what appears to be a non-agent NP, the addressee (*tān* 'them = the gods'). The situation is similar in (12b), whose sole absolutive (*ānīya* 'having taken') is not controlled by the agent of the sentence (*garalam*, the poison that fell in someone's food), but by a marginal participant in the action, a hawk (*śyena*). The examples under (13) present comparable difficulties with reflexivization. In (13a), the reflexive's antecedent is *rājā* 'the king', the patient, not the agent of the passive sentence. The situation is similar in (13b), except that here the implied patient ('all') occurs in a nominalized structure and consequently is marked in the genitive (as shown by the agreeing genitive on the participle *niviṣṭānām* 'performing').

Examples of the type (12) - (13), however, are only apparent exceptions to the general rules of absolutive formation and reflexivization. For while in (12a), the gods are not the agent of the entire sentence, they are agents of the participle *āsīna-* 'sitting'. The situation is similar in the rest of the examples: In (12b), the hawk is the agent of the participle *khādyamāna-* 'being eaten'; in (13a), the reflexive refers to the agent of the participial expression *vyāpādayitum udyataḥ* 'setting out to kill'; and in (13b), it refers to the implied agent of the participle *niviṣṭa-* 'performing'.

All we need to do in order to account for examples of this sort which, as noted, are thoroughly systematic and freely attested, is to permit 'bracketing', i.e., the control of absolutives and reflexives not just within the entire sentence, the 'matrix clause', but also within the subordinate, participial expressions embedded into the matrix clause; compare the bracketing in (12') and (13') below. In the bracketing diagrams, the agent NP of the participial structures is analyzed as being outside the participial bracket; for it receives case assignment from the matrix clause, not from the participial structure.[1] (For instance, in (12'a), the accusative case assignment on *tān* 'them (= the gods)' reflects the fact that the verb of the matrix clause, *brū-* 'say', assigns accusative (or dative) case to addressees.) The participial structure, then, can (informally) be considered a modifier of that agent NP.

(12') (a) (... devā agre vyajayanta)
[tān [vijitya yathalokam āsīnan]$_{pple}$ indra etya $_{\smile}$ abravīt ...]$_{MC}$
abs. pple. abs.
(JB 1.156)
'(The gods first won.) [to them [who — having won — were sitting each one in his own world]$_{pple}$ Indra — having come up — said ...]$_{MC}$'

(b) [ity eva kāle [śyenena $_{\smile}$ ānīya khādyamānasya]$_{pple}$ sarpasya
abs. pple.
garalaṁ taddravye nipatitaṁ]$_{MC}$
(Vet. 76.11.13)
'[At that very time, the poison of a snake$_i$ [being eaten by a hawk, (the hawk) having carried (it$_i$) off]$_{pple}$ fell in his food.]$_{MC}$'

(13') (a) [rājā 'pi ... [ātmānaṁ vyāpādayitum udyataḥ]$_{pple.}$ prasannayā
refl. pple.
caṇḍikayā niṣiddhaḥ]$_{MC}$ (Vetikā 75.15-17)
[And the king ... [setting out to kill himself]$_{pple.}$ was prevented by the propitiated Durgā.]$_{MC}$'

(b) [[sve sve dharme niviṣṭānām]$_{pple.}$ ... rājā sṛṣṭo 'bhirakṣitā]$_{MC}$
refl. pple.
(M 7.35)
'[[The king has been created the protector of (all) [who perform their various duties.]$_{pple}$]$_{MC}$'

2.4. A third criterion is word order: No matter whether the construction is active or passive (or passive-like), the unmarked word order is Agent + Patient + Verb; cf. (14a/a'). Other orders are possible, such as (b/b') and (c/c'). But these are relatively more marked.

(14) (a) janā rājānaṁ paśyanti
'The people see the king.'

(a') janai rājā dṛśyate
'The king is seen by the people.'

(b) rājānaṁ janāḥ paśyanti
'The people see the king.'

(b') rājā janair dṛśyate
'The king is seen by the people.'

(c) rājānaṁ paśyanti janāḥ
'The people see the king.'

(c') rājā dṛśyate janaiḥ
'The king is seen by the people.'

2.5. A final feature of agenthood is that certain derived nominals, such as the first item under (15), refer to the agent, not the patient. Others may refer either to the agent or the action; but in such cases there is a clear difference in meaning. Cf. e.g. the second item under (15).

(15) darśaka- 'viewer'
darśana- 'viewer; (act of) viewing'

3. Let us now examine to what extent these features of agenthood can be observed in possessor NP structures of the type (6) above.

3.1. As examples (16) and (17) show, such possessive NPs control absolutive formation, whether specified (16) or not (17). Moreover, structures of this sort are richly attested. In fact, Speijer 1886 notes that constructions of this type are the commonest exceptions to the rule that [non-possessive] agents control absolute formation.[2]

(17) ... svasti vācayitvā svasti ha ⌣ eṣām bhavati (ŚB 6.1.5)
abs. Gen.
'... having caused "svasti" to be recited, "svasti" is theirs = they have "svasti".'

(18) evam imāṁl lokānt samāruhya ⌣ athaiṣā gatir eṣā pratiṣṭhā
abs.
(ŚB 1.9.3.10)
'[One] having thus ascended these worlds, that goal, that support (is one's) = one has that goal, that support.'
(Similarly ŚB 14.7.3.13, KB 8.7, Vet. 14.1, 144.17, etc.)

Given this agent-like behavior, as well as the fact that the possessor NPs in these structures have the same semantic/pragmatic prominence in their clauses as do the subjects of English 'have'-constructions, we may tentatively conclude that the possessor NPs are in fact '**possessive agents**'.

Now, at first sight, the evidence in (17) and (18) seems to be weakened by examples like those in (19) and (20), where genitive possessor NPs that are not the agents of their clauses, whether specified (cf. the (a) versions)) or not (cf. the (b) versions), likewise control absolutive formation. And note that examples of this sort are just as common as those of the type (17) and (18).

(19) (a) (h)atvā vṛtraṁ vijitya yuṣmābhir me 'yaṁ saha somapītha(ḥ)
abs. abs. Gen.
(KB 15.2)
'Having slain Vṛtra, having conquered, this soma-drinking with you is mine.'

(b) atra sthitvā prayojanābhāvaḥ (Vet. 130.1-2)
abs.
'[One] having stayed here, there is an absence of usefulness [of one].'

(20) (a) na ⌣ asya śrutvā gṛhe vaseta (AV 12.4.27)
Gen. abs.
'She should not dwell in his$_i$ house, he$_i$ having heard the verses.'

susnātaṁ puruṣaṁ dṛṣṭvā ... | klidyante yonayaḥ strīṇāṁ
abs. Gen.

(Vetikā 15.37-38)
'(Women) having seen a well-bathed man, women's vaginae get wet.'

(b) tatra gatvā dakṣiṇādhipatinā saha darśanaṁ saṁjātam
abs.

(Vetikā 22.25-6)
'[He$_i$] having gone there, [his$_i$] audience with the king of the Southland came about.'

Of these two types, the one in (19) is less problematic and may perhaps not be a problem at all. Whereas in examples (17) and (18), the possessor NPs semantically/pragmatically seem to be the agents of their clauses, in (19) they appear to function more like predicate NPs, cf. the translations. However, the distinction between agent NP and predicate NP is rather difficult to establish in a free-word-order language like Sanskrit. Structures like the ones under (19) might instead differ from the ones in (17) and (18) in terms of something like 'focus'. Thus, while given the pragmatic context, the translations in (19) seem to be more natural, it is certainly possible to gloss these passages with English 'have' constructions as 'Having slain Vṛtra, having conquered, I have this soma-drinking with you' for (19a), and 'Having stayed here, I have an absence of usefulness' for (19b).

Constructions of the type (20), however, can be accounted for only if we allow for the same kind of bracketing as in the constructions discussed in section 2.3 above. Moreover, in the case of putative possesive-agent constructions, we must further stipulate that in embedded participial structures the verb 'to be' may be freely deleted, just as it is in finite structures like (6) above. (Compare also the presence of 'be' (*bhavati*) vs. its absence in the citations in (17) and (18).)

With these provisions, we can account for the absolutive control in (20) by considering structures such as the second example under (20a) as derived from, or equivalent to, the bracketing representation in (21) in which the verb 'to be' has been specified: The relationship between the NP *strīṇām* '(of) women' and the participle *satyaḥ* 'being' in (21) is of the same nature as that between the NP *eṣām* '(of) them' and the finite verb *bhavati* in (17). The absence of the participle *satyaḥ* 'being' in the actually attested structure, then, can be attributed to the same principles that permit structures like (18) to lack an overt verb 'to be'.

(21) [[susnātaṁ puruṣaṁ dṛṣṭvā ... | strīṇāṁ satyaḥ]$_{pple}$ yonayaḥ
abs. Gen. pple.
klidyante]$_{MC}$
'[[(The women) having seen a well-bathed man,]$_{pple}$ the vaginae [being of the women/which the women have]$_{pple}$ get wet.]$_{MC}$'

3.2. Further support for considering possessor NPs to be agents comes from reflexivization. As examples like the ones in (22) illustrate, reflexive pronouns likewise are controllable by the genitive possessor NPs that function prag-

matically as agents of their clauses, just as the subjects of English 'have'-clauses. And again, examples are richly attested, both for specified (22a) and non-specified possessive agents (22b).

(22) (a) na kaścic caṇḍakopānām | ātmīyo nāma bhūbhujām (Bhartṛ.)
refl. Gen.
'Of kings (who are) indomitably angry, no one is their own.'
= 'Kings (who are) indomitably angry have no one of their own.'

(b) svaṁ cet karmaphalaṁ na syāt (MBh. 13.313)
refl.
'If there should not be one's result of the action.' = 'If one should not have a result of one's action.'

Again we meet with apparent counterexamples, in which genitive possessor NPs that are not agents of their clauses control reflexivization; cf. the examples in (23) - (26), where as before, the (a) versions present examples with specified possessor NP, while the (b) versions lack an overt possessor NP. (In (24b), the clitic accusative pronoun ***enam*** 'him' may pragmatically function as something like an antecedent for the reflexive. However, grammatically, it is not a possessor NP or an agent NP. The implied possessor NP would be *asya* or *tasya* 'his'.) Most commonly, examples of this type involve the reflexive pronoun *sva-*, a form with almost invariably possessive meaning. (Cf. e.g. examples (23) and (24).) On the other hand, structures of the type (25), with the generally non-possessive pronoun *ātman-* (or *nija-*) are relatively less common. This predominance of explicitly possessive reflexives strongly suggests that what is relevant in our putative possessive-agent structures is not case (genitive vs. other), but function (possessor vs. non-possessor NP).

(23) (a) svam eva sthānaṁ etat te (Kathās. 61.120)
refl. Gen.
'This is your abode.'
(párehi pánthāṁ) yás te svá(ḥ) ... (RV 10.18.1)
Gen. refl.
'(Go away on the road) which is your own.'

(b) sā hi svā rājadhānī (Kathās. 39.163)
refl.
'For this is my (=the speaker's) royal city.'

(24) (a) teṣāṁ doṣān abhikyāpya sve sve karmaṇi tattvataḥ |
Gen. refl.
kurvīta śāsanaṁ rājā ... (M 9.262)
'Having caused their crimes (which they committed) in each of their acts to be proclaimed in accordance with the facts, the king should exact punishment ...'

(b) ... (e)naṁ svaḥ pāpmā ⌣ abhyārokṣyati (JB 1.337)
refl.
'His$_i$ own sin will descend upon him$_i$.'

(25) (a) pāpīyasy asya ⌣ ātmanaḥ prajā syād (TS 5.6.8.2)
Gen. refl.Gen.
'His$_i$ self's$_i$ offspring would be worse off.'

(b) vedo 'khilo dharmamūlaṁ ... | ātmanas tuṣṭir eva ca (M 2.6)
refl.Gen.
'The entire veda is the basis of correct conduct [for one$_i$] ..., and [if the aforementioned other texts provide no authority] one's$_i$ own predilection.'

Some apparent counterexamples are, mutatis mutandis, of the same nature as (19) above and thus may not be a problem at all. Also here the possessor NPs semantically/pragmatically seem to function as predicate NPs, cf. the translations. However, again, the distinction between agent NP and predicate NP is difficult to establish. This is especially true for the first example under (23a), where a translation 'You have this as your abode' would be quite acceptable. (On the other hand, for the other examples under (23), similar translations, viz. '... which you have as your own' and 'For I have this as my royal city', although not altogether impossible, appear rather forced. For these examples a bracketing solution must be considered a strong alternative.)

The remainder of the apparent counterexamples can again be taken care of by bracketing, with the same stipulations as for the absolutive structures in (20). Compare (26) and (27), the bracketed counterparts of (24a) and (25a). (Example (24a) comes from a metrical text with some scrambling of word order. In (26), that scrambling has been undone so as to make the bracketing of constituents more conspicuous.)

(26) [[teṣāṁ sve sve karmaṇi sataḥ]$_{\text{pple}}$ doṣān abhikyāpya tattvataḥ |
Gen. refl. pple.
kurvīta śāsanaṁ rājā]$_{\text{MC}}$
'[Having caused the crimes [(which are) being theirs in each of their acts]$_{\text{pple.}}$ to be proclaimed in accordance with the facts, the king should exact punishment.]$_{\text{MC}}$'

(27) [pāpīyasy asya ⌣ [ātmanaḥ satī]$_{\text{pple.}}$ prajā syād]$_{\text{MC}}$
Gen. refl.Gen.
[His$_i$ offspring [(which is) being his self's$_i$]$_{\text{pple.}}$ would be worse off.]$_{\text{MC}}$'

3.3. As for the other two features of agenthood, the evidence is at this point insufficient or unclear:

I have the impression that in fully clausal structures of the type (6) or (17/18), the genitive-marked possessor NP takes first position in unmarked discourse. However, I have not been able to buttress that impression with a sufficiently large data collection. The reason for this inability lies not in a dearth of putative possessive-agent constructions, but in the fact that most attestations have either pronominal possessive NPs with third-person reference (cf. the *eṣām* 'their' of (19) above) or unspecified possessors (as in (20)). The latter constructions obviously cannot indicate anything about the ordering of possessor

NPs. Structures with pronominals likewise generally are of no help, since deictic pronouns of the type *tad, etad* 'this/that' and clitic pronouns like *eṣām* 'their' tend to go into clause-initial strings. Their order, therefore, is fixed by principles not connected with their status as subjects, possessors, etc. (Cf. Hock 1982a for a discussion of the situation in Vedic Prose.)

The evidence of nominalizations is uncertain: The root *as-* 'to be' does not undergo nominalization; *bhū-* offers the nominalizations *bhavaka-* 'existence' and *bhāvaka-* 'causing to be; fancying, imagining, having a poetic sense'. The meanings of the latter are too specialized to be relevant in the present context. The former appears to be a rare alternative to *bhava-* 'being, existence, etc.', from which it may well be derived by affixation of the derivative suffix *-ka-*. Forms of the type *bhava-*, however, refer to the action, not to the agent; cf. *bhoga-* 'enjoyment, act of enjoying, etc.' from *bhuj-* 'enjoy, etc.'

3.4. The evidence in favor of viewing our possessor NPs as possessive agents, thus, is not as strong as one might like it. At the same time, however, it may be taken as strongly suggestive:

The behavior of absolutive formation and reflexivization which, as noted, is highly systematic, would be difficult to account for if possessor NPs were not grammatical agents. The only alternative would be to account for the control of these processes by possessor NPs as instances of pragmatic, rather than grammatical control. However, this account would fail to explain the difference in systematicity and frequency between possessor-NP control of absolutives and reflexives and control by other NPs that are not prototypical agents (cf. the examples in (9)).

And while nominalizations and word order (at this point) provide no evidence for the hypothesis, they likewise provide no evidence against it.

4. While thus still somewhat speculative, the hypothesis that Sanskrit has possessive agents is quite attractive and fruitful:

In an earlier paper (Hock 1983b) I suggested that reflexivization statistically is a less reliable criterion for agenthood than word order and absolutive formation; for the occurrence of reflexives in structures like (24) and (25) did not seem to be conditioned by the presence of any major constituents. The possessive-agent hypothesis makes it possible to remove such apparent counterexamples, and thus the majority of apparent exceptions, through the principle of bracketing. And as a result, the residue of apparently genuine instances of 'sloppy' reflexivization not controlled by possessive (or other) agents, such as (28) and (29) below, becomes small and not significantly larger than the instances of 'sloppy' absolutive formation.

(28) yad ... brahma cakra | ... mahyaṁ sakhye sakhāyas tanve tanūbhiḥ
refl.$_i$ refl.$_j$

'Which praise you$_j$ made ... for me$_i$, the friends for the friend, by yourselves$_j$ for myself$_i$.' (RV 1.165.11)

(29) ātmānaṁ vai tvā ˍ ajaiṣam ...
refl.
'I have won you$_i$ yourself$_i$.' (ŚB 3.6.2.8)

Let me conclude by mentioning the implications which an established hypothesis of possessive agents would have for Sanskrit:

First of all, it might be considered support for resurrecting the oblique-agent hypothesis, on the grounds that the existence of possessive agents establishes a precedent for such non-nominative/non-instrumental agents. Further support for this assumption might be found in the fact, noted by Tikkanen (1987b:147-52) that our possessive agents typically are beneficiaries, as well as the most animate, agentive, or affected constituents of their clauses. These are features that possessive agents share with oblique experiencers of the type (4). Thus, in many examples with possessive agents, such as (17), it is possible to read the genitive not just as characterizing a possessor, but also as a beneficiary or affected constituent ('"svasti" exists/comes about **for** them'). It might therefore be argued that possessive agents are merely a special subtype of a larger syntactic category of oblique experiencers which includes the experiencer of (4). Put differently, under this approach the combined evidence of examples like (4), however rare they may be, and the much more common possessive-agent structures could be considered sufficient to establish that Sanskrit had a general category of oblique experiencer subjects.

However, as mentioned earlier, the argument that oblique experiencers of the type (4) are agents runs into perhaps insurmountable difficulties as far as the direct evidence of these constructions is concerned; cf. Hock To Appear. Moreover, there must be other, serious reservations about equating possessive agents with experiencers of the type (4). For while there are many structures like (17), in which possessor NPs are simultaneously experiencers, there is an at least equal number in which such experiencer status is at best possible (25a), doubtful (as in the second example under (23a), addressed to *mṛtyu* 'death'), or even out of the question (first example in (20a)). It seems to me dubious to separate these common possessor-NP structures from the 'experiencer-possessor' type (17). To do so would require considering structures of the type (20a) or (23a) 'anomalous', comparable to the much rarer 'sloppy' absolutive (or reflexive) constructions exemplified in (9).

Perhaps more importantly, the possessive-agent hypothesis might suggest that Pāṇini's account of absolutive formation is in need of revision. For as noted, Pāṇini's analysis does not provide a mechanism by which agents could be assigned genitive case in clausal possessive structures of the type (17) and (18). However, given the existence of other syntactic differences between Pāṇini's formalized grammar and the grammar implicit in what I have elsewhere (Hock 1981) called the textual tradition of madhyadeśa, it is at least possible that here, too, we are dealing with dialectal differences — with Pāṇini's extreme northwestern dialect having a grammatical system markedly different from

madhyadeśa Sanskrit. (For a discussion of these other differences, see Hock 1981 and Deshpande 1983)

Finally, the possessive-agent hypothesis has interesting consequences for linguists concerned with South Asia as a convergence area: 'Oblique-subject' structures have for a long time been considered a hallmark of South Asian languages. The fact that even in its earliest stages, Sanskrit appears to have had at least one such construction, viz. the possessive-agent type, should be of considerable interest in this regard. However, while the similarity between Sanskrit and (many[3] of) the modern South Asian languages is interesting, we must not lose sight of the fact that there are also considerable differences: As noted at the beginning of this paper, in Hindi, the oblique-experiencer type is quite firmly established as exhibiting subject-like properties, while the possessor type tends to lack at least one of these properties. In Sanskrit, the situation is just about the reverse. Possessor constructions offer fairly strong evidence for subject properties of their possessive agents, while the hypothesis that oblique experiencers had subject-like properties runs into perhaps insurmountable difficulties.

NOTES

*The paper as originally read dealt also with the question of oblique-experiencer agents. This issue is now addressed separately and in fuller detail in Hock To Appear. — I have benefited from comments by Bertil Tikkanen and I am grateful for help with the Hindi data from Rakesh Bhatt and my wife, Zarina Hock. I also gratefully acknowledge support from the University of Illinois Research Board for work on this paper. Needless to state, the responsibility for any errors and omissions rests with me.

[1]These examples provide further evidence that the notion 'agent' is independent of case marking: Agents may be in the nominative (in active expressions), in the instrumental (in passives and passive-like constructions), or in any case appropriate to the matrix construction in which they occur, if they are the agents of embedded participial structures. (For further discussion of 'bracketing' see Hock 1986.)

[2]Speijer, to be sure, makes a blanket-reference to all 'dative-like' genitives, not just to possessive ones. But the evidence that I have been able to collect suggests that the statement must be limited to 'possessive agents'. (See also the discussion in section 4 below.) In addition, Speijer included in his statement a reference to locative-marked NPs in locative absolute constructions. But these constructions are simple instances of 'bracketing'.

[3]But certainly not all modern South Asian languages. Compare e.g. Pandharipande To appear for Marathi.

Causees, passive agents, or instruments? Instrumental NPs with causatives in early and later Vedic Prose*

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1. As is well known, the Sanskrit of Vedic Prose and of the classical era permits two types of causative constructions, one with the 'intermediate agent' or 'causee' in the instrumental, the other in the accusative (to which corresponds a nominative in the passive of the causative). Compare the examples in (1) and (2). While in Pāṇini's grammar (through sūtras 1.4.52-53[1] and other rules), the distribution of these case markings is predictable in terms of verb classes, in the 'madhyadeśa' tradition, extending from Vedic Prose to the classical and post-classical period, it is governed by pragmatic considerations: In contexts that permit unambiguous interpretation, accusative case is unmarked, while instrumental case indicates that the causee is not affected by or not benefiting from the action; cf. Hock 1981 with references.[2]

(1) (a) tā aticarantīr varuṇenāgrāhayat (KS 13.2)
Instr.
'He made Varuṇa seize them (who were) rebelling.'

(b) āraṇyān eva paśūñ śucārpayati (KS 19.5)
Instr.
'He causes pain to afflict the wild/nondomesticated animals.'
[yáṁ dviṣmás táṁ te śúg ṛchatv íty] yám evá dvéṣṭi tám agnéḥ śucárpayati (MS 3.3.5)
Instr.
'["Whom we hate, him your pain should afflict."] Whom he hates, him he makes Agni's pain afflict.'

(2) yo durbrāhmaṇaṁ somaṁ pipāyayiṣed (KS 13.6)
Acc.
'Who should desire to make/permit a bad brahmin to drink soma.'

Of the two types of constructions, only the one with accusative causees has antecedents in earlier 'Mantra' Vedic, as well as parallels in other Indo-European languages; cf. Cardona 1978 and Hock 1981.[3] The instrumental marking therefore must be an innovation.

In Hock 1981 I argued on circumstantial evidence that instrumental-causee marking (as in (1)) originated in Vedic Prose through reinterpretation of instrumental-marked 'animate instruments' (of the type (3)). In this view I disagreed with Cardona's earlier analysis (1978, 1981) according to which the instrumental marking of causees is linked with and historically derived from the instrumental marking of agents (i.e. underlying or 'logical' subjects) in the passive. In the present paper I reexamine the issue by adducing additional evidence not considered in earlier publications.

(3) devalokám vā agnínā yájamānó 'nu paśyati (TS 2.6.2.1)
Anim. Instrum.
'The sacrificer looks along (the road to) the world of the gods by means of Agni.'

2. The basic assumption of the present paper is that it is possible to come closer to the point of origination of instrumental-marked causees by looking at **formulaic expressions** which employ such causees and occur in the **earliest** Vedic-Prose texts.

There are two such expressions, one involving the causative *grāh^{i}-* (pres. *grāhayati*) from *gra(b)h-* 'seize', the other *arp^{i}-* (pres. *arpayati*) from *ṛ(cch)-* 'to reach, go to'. Both of these are illustrated in example (1); *grāh^{i}-* in (1a), and *arp^{i}-* in (1b).

Concentrating on such formulaic expressions should not be taken to imply that instrumental causees occur only in formulaic expressions: Examples like (6) below show that they are found also in other structures. Nor do I want to claim that the causatives *grāhayati* and *arpayati* are restricted to what I consider prototypical formulaic expressions: Example (19) below, for instance, offers an instance of *grāh^{i}-* with *rājayakṣma-* 'the king's consumption', a causee different from Varuṇa, the prototypical causee of the formula. Rather, formulaic expressions can be expected to be fairly archaic and thus to permit a glimpse at an earlier stage in the historical development than non-formulaic, 'spur-of-the-moment' constructions. Moreover, looking at early formulaic causative expressions and their syntactic relationship to archaic noncausative 'source formulas' in some cases permits an evaluation of different hypotheses on the basis of actually attested evidence, rather than thought experiments.

3. The construction with *arpayati* has clear antecedents in Mantra-Vedic formulas; cf. for instance (4) below. These 'source formulas' contain the following characteristic features (set off in boldface in example (4)):

(i) Agni;
(ii) His (or someone else's) pain (*śuc*) or thirst (*kṣudh*);
(iii) Cattle or animals (*paśu*) or in some variants (cf. (5c/d) below) a stone (*aśman*) that may but should not be afflicted by pain or thirst;
(iv) One's rival ((*yò 'smắn dvéṣṭi*) *yám (ca) vayám dviṣmáḥ* '(who hates us and) whom we hate') whom pain or thirst is to reach (*ṛcchatu*).

(4) imáṁ mā́ hiṁsīr dvipā́dam **paśūnā́m** sáhasrākṣa á cīyámānāḥ |
mayúm **paśúm** médham **agne** juṣasva téna cinvānás tanvò níṣīda ||
mayúm te **kṣúd** yám **dviṣmás** tám te **śúg ṛcchatu** || imáṁ mā́
hiṁsīr ékaśapham **paśūnā́m** kanikradám vā́jineṣu | gaúram
āraṇyám ánu te diśāmi téna cinvānás tanvò níṣīda || gaúram te
kṣúd yám **dviṣmás** tám te **śúg ṛcchatu** ||
(KS 16.17; Sim. ibid., KS 17.17, MS 2.7.17)
'Do not injure this two-footed one of the animals, O thousand-eyed one, being piled up. Enjoy, O Agni, the *mayu* animal/victim; piling yourself with it, be seated. || May your thirst go to the *mayu*, may your pain go to/afflict him whom we hate. || Do not injure this one-hoofed one of animals, the one thundering in the contests. I appoint for you the wild buffalo; piling yourself with it, be seated. May your thirst go to the wild buffalo, may your pain go to/afflict him whom we hate.'

These are precisely the elements that recur in different combinations in the formulaic causative constructions of Vedic Prose. Cf. the examples under (1b) reproduced below, with the relevant features marked in boldface. (The second example contains a citation of part of the source formula. Here as elsewhere, this source-formula citation is set off in square brackets.) It may therefore be assumed that the Vedic-Prose formula illustrated in (1b) is in fact derived from the earlier, Mantra-Vedic formula exemplified in (4).

(1) (b) āraṇyān eva **paśūñ śucārpayati** (KS 19.5)
Instr.
'He causes pain to afflict the wild/nondomesticated animals.'
[yáṁ dviṣmás tám te śúg ṛchatv íty] yám evá **dvéṣṭi** tám
agnéḥ śucā́rpayati (MS 3.3.5)
Instr.
'["Whom we hate, him your pain should afflict."] Whom he hates, him he makes Agni's pain afflict.'

What is important for our discussion is that the source formula illustrated in (4) (and all of its variants) has a clearly active, not passive form of the verb *ṛ(cch)-*. This suggests that the causatives in (1b) and similar passages are derived from an **active** source, without an intervening passive.

On the other hand, Cardona (1978, 1981) has pointed to passages like the *śucā́ hy ṛtā́ḥ* 'for they are afflicted by pain' of (5a-c) as evidence that our structure permitted a passive (or passive-like[4]) non-causative variant, whose instrumental-marked agent (*śucā́* 'by pain') could serve as the basis for instrumental causee marking in the causative (*śucā́ ˘ arpayati* 'causes pain to afflict').[5]

(5) (a) só **'gnír** jātáḥ prajā́ḥ **śucā́rpayati** ... | ... yád grāmyā́ṅām
paśūnā́m cármaṇā sambhā́red grāmyā́n **paśū́ñ chucā́ ˘**
arpayet kṛṣṇājinéna sám bharaty āraṇyā́n evá **paśū́n** |
śucā́rpayati tásmāt samā́vat **paśūnā́m** prajā́yamānānām
āraṇyā́ḥ paśávaḥ kánīyāṁsaḥ *śucā́ hy ṛtā́(ḥ)* ...
(TS 5.1.4.1-3; sim. KS 19.5, 20.8, 21.7; TA 5.2.11-12)

That Agni, (just) born, makes pain afflict the creatures ... | ... If he were to gather with the skin of domestic animals, he would make pain afflict the domestic animals. He gathers with a black antelope skin. (Thus) he makes pain afflict the wild animals. Therefore of animals as they are born, the wild ones are smaller. For they are afflicted by pain ...'

(b) (... amúm āraṇyám ánu te diśāmîty āha) grāmyébhya evá **paśúbhya** āraṇyắn paśūñ **chúcam** ánūt srjati tásmāt samāvat **paśūnắṁ** prajắyamānānām āraṇyắḥ paśávaḥ **kánīyāṁsaḥ** ***śucā́ hy ṛtáḥ*** (TS 5.2.9.5)
'(He says, "I appoint for you so-and-so of the forest.") He sends out pain from the domestic animals to the wild animals. Therefore the wild animals are the smaller of animals that are born at the same time; for they are afflicted by pain.'

(c) prajāpater vā eṣa raso yad āpaḥ prajāpater evainaṁ rasena tarpayati sa enaṁ tṛptaḥ ... upatiṣṭhate ... [aśman te **kṣud** yaṁ **dviṣmas** taṁ te **śug** ṛcchatv iti] yam eva **dveṣṭi** tam asya **kṣudhā ca śucā cārpayati** ... ... yaivāgnau **śuk** tām ādāya **tayainam arpayati** ... na grāmyān **paśūn** hinasti nāraṇyāṁs tasmād etaṁ vasantā ca pravṛṣi cābhigacchati ***śucā́ hy eṣa ṛto*** ... yaṁ **dveṣyāt** tam abhyasyec **chucaivainam arpayati** (KS 21.7)
'Now that essence which is the waters is of Prajāpati. He pleases him with Prajāpati's essence. He, pleased, ... worships him ... ["Your thirst is in the stone. Whom we hate, him your pain shall reach."] Whom he hates, him he makes his thirst and pain afflict ... What pain is in Agni/the fire, taking that up, he makes that afflict him ... He does not injure the domestic animals or the wild ones. Therefore he attends to him in spring and in the rainy season; for he is afflicted by pain ... Whom he may hate, for him he should perform. He makes pain afflict him.'

(d) prajắpater vắ eṣá rásaḥ prajắpater evá **raséna** pariṣiñcaty [áśmaṁs te **kṣúd** íty] áśmānam evá **kṣudhắrpayti** ... [yáṁ **dviṣmás** tám te **śúg** ṛchatv íti] yám evá **dvéṣṭi** tám agnéḥ **śucắrpayati** ... yaívāgnéḥ **śúk táyainaṁ arpayati** ... ná grāmyắn **paśūn** hinásti nắraṇyān ... (MS 3.3.5-6)
'Now that essence is of Prajāpati. He sprinkles about with Prajāpati's essence. ["Your thirst is in the stone."] He makes thirst afflict the stone. ["Whom we hate, him your pain shall reach."] Whom he hates, him he makes Agni's/the fire's pain afflict ... The pain which is of Agni/the fire, that he makes afflict him ... He does not injure the domestic animals or the wild ones.'

3.1. Now, the passive-like type *śucā́ hy ṛtáḥ* was no doubt a possible structure, even in early Vedic. But incidental occurrences of this type would not be able to motivate the *arpayati*-formula in the same way as the well-established — and ancient — source formula (which, as noted, is active). To be able to do so, the type *śucā́ hy ṛtáḥ* would have likewise to be found in a fairly ancient **formula**. Textual evidence, however, makes dubious the assumption of such an alternative passive(-like) source formula:

First, while the active source formula is attested in the mantra collections of the Black Yajurveda and thus is quite old, the passive-like expression *śucā́ hy ṛtáḥ* is limited to prose-texts, i.e. to a later chronological layer.

Second, wherever it occurs — the examples and references in (5a-c) above seem to cover the whole range —, the passive-like expression is an **appendage**, portraying a consequence of actions described in longer, preceding passages that employ either the causative or a semantically similar non-causative active expression. The drift of the total passage is something like this: 'Agni (or someone else) afflicts the cattle with pain; and they are born smaller, **because** they have thus been afflicted with pain.'

Third, as example (5b) shows, this 'consequential' passive-like expression may be linked semantically, rather than formally to a preceding active expression. (In this case, the preceding verb is act. *ánu̍t sṛjati* 'send out after/to', not *arpayati* 'make to reach, cause to afflict'.) And, more significantly, examples like (5d) show that the instrumental-causee formula can occur independently of the passive-like structure. That is, the relationship between the *arpayati-* and *śucā́ hy ṛtáḥ*-structures is not of the same close nature as that between the source formula and the *arpayati*-formula.

Finally, in the earliest Vedic-Prose texts, the Saṁhitās of the Black Yajur-Veda, the 'consequential' passive-like construction is limited to the somewhat later Taittirīya and Kāṭhaka Saṁhitās. (It is also found in the even later Taittirīya Āraṇyaka.) The parallel passages of the earliest text, the Maitrāyaṇī Saṁhitā, consistently lack it; cf. e.g. (5d). In fact, the passage *śucā́ hy ṛtáḥ* or *ṛtáḥ* does not seem to occur in the entire Maitrāyaṇī Saṁhitā. That is, while the *arpayati*-formula clearly postdates the active source formula and thus can be considered derived from it, it in turn antedates the first attestations of passive-like *śucā́ hy ṛtáḥ*.

The conclusion therefore must be that for the *arpayati*-formula, qua formula, an active source formula origin is more likely and textually much better established than a passive or passive-like one.

3.2. Cardona (1978 and personal communication 1987), to be sure, while considering passages like the ones in (5a-c) important for the historical origin of instrumental-causee constructions, suggests that the *arpayati*-construction itself was synchronically lexicalized. In his view, the meaning of, say, the first example under (1b) is not causative 'He causes pain to afflict the wild animals', but simply transitive 'He afflicts the wild animals with pain'. Cardona sees additional support for his analysis in the fact that in Pāṇinian terms, structures of the

type (1b) have the 'wrong' causee marking: By sūtra 1.4.52 (and other rules), we should expect accusative, not instrumental marking with verbs of motion; cf. note 1 of this paper.

However, passages such as the ones in (5) exhibit a clear contextual relation between *ṛta-* and *arpayati*, both of which share the same 'agent', *śucā* 'pain'. Unless we want to claim that the formal relationship between the two forms is fortuitous, we can grammatically account for their relationship only by assuming that *ṛta-* and *arpayati* are, respectively, the passive-like participle and the causative of the root *ṛcch-* 'reach, afflict'. Moreover, examples like (6) show that contrary to Pāṇini's precepts, Vedic Prose permits instrumental causee marking with verbs of motion. (The issue of causee marking will be taken up again in sections 5 and 6 below.)

(6) paścād vai parīṭya vṛṣā yóṣām ádhidravati tád ene ubhé purástāt
Nom. non-caus.
kṛtvā vṛṣṇā vaṣaṭkāréṇa ádhidrāvayati (ŚB 1.7.2.12)
Instr. caus.
'Having approached (her) from behind, the male approaches the female (sexually). Thus, having placed the two (females) [= the anuvākyā (f.) and the yājyā (f.) verses] in front, he causes the male, the vaṣaṭ-call (m.), to approach them (f.) [sexually from behind].' (Similar examples with motion verbs at JB 1.337-8, ŚB 1.9.2.24, 3.9.3.7)

4. Mantra-Vedic antecedents are more difficult to find for the *grāhayati*-formula of (1a), whose message is simply that 'Somebody is caused to be seized through the agency of Varuṇa.' In fact, there is no attested source formula to which this formulaic expression could be directly related.

Perhaps, however, the formulaic expressions in (7) can be considered near-source formulas, for as will be argued below, they may indirectly support the possible existence of a source formula.

(7) (a) ná cákṣuṣo gṛhe yá eváḿ véda ... ná śrótrasya gṛhe yá eváḿ
Gen. Gen.
véda ... ná vācó nā́tmanó gṛhe yá eváḿ véda (MS 1.9.5)
Gen.Gen.
'He is not afflicted of (= in) the eye who knows thus ... He is not afflicted of (= in) the ear ... He is not afflicted of (= in) speech or of (= in) his body ...' (?)

(b) sārasvatī́m meṣī́m ā́labheta yó vācó gṛhītá (MS 2.5.2)
Gen.
'Who should be afflicted of (= in) his voice should sacrifice a ewe belonging to Sarasvatī.' (?)

4.1. Now, the interpretation of the passages in (7) has been rather controversial, partly because of parallel passages in the Kāṭhaka and Taittirīya Saṃhitās, partly because of their case syntax, and partly because of their disputed relationship to certain Rig-Vedic passages.

Let us begin the discussion by looking at example (8). This Kāṭhaka-Saṁhitā passage is nearly identical to its Maitrāyaṇī-Saṁhitā counterpart in (7a). But the grammatical form of the verb and its relation to MS *gṛhe* is difficult to interpret.

Von Schroeder, in commenting on MS 1.9.5, follows a suggestion of Delbrück's and interprets the form as an infinitive of *grah/grabh-* 'seize', comparable to RV *tujáye*. Delbrück (1888: 161, 265, 275) considers *gṛhe* and *gṛhītá* special passives of *gra(b)h-*'seize', morphologically comparable to early Vedic passives of the type *śṛṇvé* from *śru-* 'hear, listen', with an admittedly unique genitive construction of the presumed complements of *grah/grabh-*. But he has nothing to offer on the parallel *gṛhaye*.

On the other hand, after surveying earlier literature, Lüders (1924) comes to the conclusion that both *gṛhe* and *gṛhaye* are derived not from *gra(b)h-* 'to seize', but from a different root *gṛh-*, related to *gṛdh-* 'be greedy, desire'. And on the basis of the textual parallels to (7b) (for which see examples (9) and (10) below), he claims that the meaning of that root was 'vergeblich verlangen, ermangeln' ('desire/want in vain, lack'). The fact that verbs with similar meaning (but not *gṛdh-*!) do take genitive complements, he argues, accounts for the genitive complements in (7). Moreover, he claims, this interpretation permits a superior reading for two controversial Rig-Vedic passages containing verbal forms with *gṛh-*; cf. (11) and (12). Finally, he argues, KS *gṛhaye* is a later replacement of *gṛhe*, with its stem formation based on the semantically related *spṛhayati, -te* 'be eager, long for', and its ending *-e* 'mit Rücksicht auf das ältere *gṛhe* gewählt' ('chosen in consideration of the older *gṛhe*').[6]

(8) na cakṣuṣo gṛhaye ya evaṁ veda ... na śrotrasya gṛhaye ya evaṁ veda ... na vāco nātmano gṛhaye ya evaṁ veda ... (KS 9.13)
'He is not afflicted of (= in) the eye who knows thus ... He is not afflicted of (= in) the ear ... He is not afflicted of (= in) speech or of (= in) his body...' (?)

(9) sārasvatīṁ meṣīṁ ālabheta yásmād vấg apakrāmed (KS 12.13)
'From whom speech has gone away, he should sacrifice a ewe belonging to Sarasvatī.'

(10) sārasvatīṁ meṣīṁ ấ labheta yá īśvaró vācó váditoḥ sán vấcaṁ ná váded (TS 2.1.2.6)
'Who, liable to speak speech, should not speak speech, he should sacrifice a ewe belonging to Sarasvatī.'

(11) kíṁ te brahmấṇo gṛhate sákhāyo yé tvāyấ nidadhúḥ kám indra (RV 5.32.12cd)
Geldner, following Lüders:
'Sollen deine Hohenpriester, die Freunde betteln, die auf dich, Indra, ihren Wunsch gesetzt haben?' ('Shall your high priests, the friends, beg who have put their hopes in you, Indra?')
Alternative interpretation:
'Shall your priests, your friends be seized [by illness, death, or the like], they who have placed their wellbeing in you, O Indra?'

(12) *mā́ te godatra nírarāma rā́dhasa índra mā́ te gṛhāmahi* (RV 8.21.16)

Geldner:

'Wir möchten nicht deiner Freigebigkeit entraten, du Rinderschenker, und uns nicht in dir, Indra, täuschen.' ('May we not be deprived of your liberality, O giver of cattle, and not be disappointed by you, O Indra.')

Alternative interpretation:

'Let us not, O giver of cows, forgo your liberality; O Indra, let us not be seized by you (or: [by illness, death, or the like]).'

Lüders's derivation, however, does not constitute a real improvement over Delbrück's and other earlier interpretations.

First, lacking any direct support from the case syntax of *gṛdh-*, his account for the case marking in (7) is no better than the traditional one that derives *gṛhe* from *gra(b)h-* 'seize'.

Secondly, the morphology of KS *gṛhaye* remains a problem, no matter what our view on the etymology of *gṛh-*. Lüders could at best provide an explanation of the stem, but not of the ending. A derivation from *gra(b)h-* can do no worse, by relating the stem of *gṛhaye* to *gṛbhaya-*, an alternative Rig-Vedic present stem of the root .

The parallels in (9) and (10) are open to the alternative interpretation that they constitute later attempts at paraphrasing the meaning of the earlier Maitrāyaṇī-Saṁhitā passage, motivated by the fact that the formation of *gṛhe* was synchronically no longer transparent. This interpretation finds support in the fact that as (9) and (10) show, the Kāṭhaka and Taittirīya Saṁhitās chose two very different methods for doing so. What these versions and that of the Maitrāyaṇī Saṁhitā agree on is entertaining the possibility that a person might not have the power of speech at a particular time (and therefore would have to sacrifice a ewe belonging to Sarasvatī). While this situation could of course be described by Luders s *gṛh-* 'want → lack', it could just as well be stated in terms of a person's 'being seized (*grah-/grabh-*) by [a disease of] the eye, ear, speech, or body'. And a similar interpretation is possible for the Rig-Vedic passages; compare the alternative translations in (11) and (12).

In fact, a derivation from *gra(b)h-* receives a good deal of support from the fact that this verb is widely used in reference to the seizing of human beings by illnesses and gods, including Varuṇa who afflicts with disease and frees from it; cf. e.g. the passages in (13) - (17). Note especially (17) with its premise of *yó jyógāmayāvī syāt* 'who should have been ailing for a long time', and with occurrences of Varuṇa, the putative causee of the *grāhayati*-formula, as well as the formula itself.

(13) *amī́ṣāṁ cittáṁ pratilobháyantī gṛhāṇā́ṅgāny apve párehi*
(RV 10.103.12ab)
'Disturbing their mind(s), seizing (or: seize) their limbs, O Apvā [an illness manifesting itself in cowardice], go away ...'

(14) kím svin no rājā jagṛhe kád asya ⌣ áti vratám cakṛmā kó ví veda (RV 10.12.5)
'Why now has the king (Mitra or Agni?) seized us? What have we done against his rule? Who knows?'

(15) ... mā́ na áyuḥ prá moṣīḥ || ... śúnaḥ śépo yám áhvad gṛbhītáḥ sá asmā́n rā́jā váruṇo mumoktu (RV 1.24.11d,12 cd)
'Do not [O Varuṇa] rob = seize our life ... Whom Śunaḥśepa called, when he was seized, let that king Varuṇa release us.'

(16) atha haikṣvākaṁ varuṇo jagrāha tasya hodaraṁ jajñe ... ... tasya ha sma rcyṛcy uktāyāṁ vi pāśo mumuce kanīya aikṣvākasyodaram bhavaty uttamasyām eva rcy uktāyāṁ vi pāśo mumuce 'gada aikṣvāka āsa ... (AB 7.15.1, 7.16.13)
'Then Varuṇa seized the Aikṣvāka king (and) his belly grew [i.e. he had dropsy] ... As each verse was being recited, a fetter [of Varuṇa's] came loose, (and) the Aikṣvāka king's belly grows (= grew) smaller. At the recitation of the last verse, the fetter came loose [entirely], and the Aikṣvāka king was healthy ...'

(17) yó jyógāmayāvī syā́t tám eténa yājayed **váruṇena** hí vā́ eṣá pāpmánā **gṛhītó** ... yád vāruṇó **váruṇenai**vaínaṁ **grāhayitvā́** stṛṇute (MS 2.5.6; sim. KS 13.2)
'Who should have been ailing for a long time, for him he should sacrifice. For he is seized by Varuṇa, by evil ... As for its being of Varuṇa: He lays him low, having made Varuṇa to seize him.'

4.2. Now, in order for its *gṛhe/gṛhītá* to be interpretable as meaning 'is or should be seized by [a disease of] the eye, ear, speech, or body', the pattern in (7) would need two things:

First, it would require a hypothetical structure of the type (18), from which (7a) could be derived by ellipsis of an agent NP, *yákṣman-* 'consumption', *skambhá-* 'paralysis', or the like, i.e., of the disease afflicting the body parts *cákṣus-*'eye', *śrótra-* 'ear', *vā́c-* 'speech' etc. By postulating a (deleted) head noun for the genitive forms *cákṣuṣaḥ, śrótrasya, vācáḥ*, etc., this derivation would explain the peculiar genitive case syntax of (7a) (and (7b)).

(18) *cákṣuṣaḥ, śrotrasya, vāco ... yákṣmaṇā, skambhéna, ... gṛhe
Gen. Gen. Gen. Agent (Instr.)
'(S)he is afflicted by consumption, paralysis, etc. of the eye, ear, speech, etc.'

Secondly and more importantly, the construction would have to be open-ended, so as to include among its possible agent nouns Varuṇa, the god who afflicts with disease and frees from it. (For this aspect of Varuṇa, compare again examples (15) - (17).)

Now, (19) and (20) show expressions like *yakṣman-* 'consumption' or *skambha* 'paralysis' cooccurring with a passive-like form of *grah-*, the *ta*-participle *gṛhītá-*. Even more significant is the internal composition of the form *ūruskambhágṛhīta-* in (20): In addition to the passive-like *gṛhīta-* 'seized, af-

flicted' and the afflicted body part (*ūru-* 'thigh'), it contains the name of the disease afflicting that body part, *skambha-* 'paralysis'. That is, the compound contains all three of the elements postulated in (18). Moreover, the rules of Sanskrit permit this compound to be derived from the hypothetical structure (21), an expression entirely parallel to (18). If, then, there could have been a similar passive structure (22) with Varuṇa as the agent, the formulaic instrumental-causee constructions of the type (1a) could be historically derived from this earlier and synchronically clearly moribund passive. And the type (22) may be considered supported by the passive-like structure of (17) above, which involves Varuṇa plus the participle *gṛhītá-*: *váruṇena hí vā́ eṣá ...gṛhītó* 'for he (is) seized by Varuṇa'.

(19) táṁ **rājayakṣméṇā**grāhayat sá nírasravat tásmād
rājayakṣmágṛhīto níḥsravati (MS 2.2.7)
'He caused the king's consumption to afflict him. He flowed = wasted away. Therefore (a person) afflicted by the king's consumption wastes away.'

(20) ūruskambhágṛhīta- (MS 1.10.4)
'afflicted with paralysis of the thighs'

(21) *ūrvór skambhéna gṛhe
Gen. Instr.
'(S)he is afflicted with paralysis of the thighs.'

(22) *varuṇena gṛhe
Instr.
'(S)he is afflicted by Varuṇa.'

Moreover, a passive derivation of the *grāhayati*-type, different from that of the active-derived *arpayati*-formula, might appear supported by the fact that the two constructions have very different word order preferences: The *arpayati*-formula strongly favors preposing of the direct object or 'patient' before the instrumental noun phrase, while the *grāhayati*-type has preposed and postposed order in about equal proportions; cf. the statistics in (23).[7]

(23)

	Patient + Instr.	Instr. + Patient
arpayati-formula	30	2
grāhayati-formula	7	5

4.3. However, while this account has many attractive elements, it cannot be considered established beyond reasonable doubt. For a derivation of the formulaic *grāhayati*-causative from a 'source formula' of the type (22) must be considered highly speculative. Although there may be good reasons for believing the construction in (22) to have been possible, there is no evidence that would conclusively establish its existence, as a formula or even otherwise.

The problem is not only that there are no attested structures of the type (18), (21), and (22), with overt, specified agents. Even the evidence of passive-like compounds like *rājayakṣmágṛhīta-* and *ūruskambhágṛhīta-* (as well as *váruṇa-gṛhīta-*) is quite limited. For a compound like *ūruskambhágṛhīta-* does not necessarily have to be derived from a structure like (21) with an 'agent' NP

(*skambhá-*) plus genitive of the afflicted body part (*ūrvóḥ*). It could just as easily correspond to the alternatives in (21') below in which the agent NP is a compound *ūruskambhá-* 'thigh-paralysis' which would fail to motivate the genitive marking in (7a). More importantly, since transitive *tá*-participles are obligatorily construed as passives and thus neutralize the distinction active : passive, they can correspond equally well to finite actives as to finite passives; cf. Hock 1986. The compound *ūruskambhágṛhīta-* therefore may just as easily be derived from the active expressions in (21'b/c) as from the passive ones in (21) and (21'a). And the same argument applies to *váruṇagṛhīta-*.

(21') (a) *ūruskambhéna gṛhe
'(S)he is afflicted by thigh-paralysis.'
(b) *yám ūrvór skambhó gṛhṇāti
'Whom paralysis of the thighs afflicts ...'
(c) *yám ūruskambhó gṛhṇāti
'Whom thigh-paralysis afflicts ...'

Moreover, while the *yakṣman-* and *skambha-* of *rājayakṣmágṛhīta-* and *ūruskambhágṛhīta-* may be interpreted as agents, they could just as well be instruments; cf. e.g. the examples in (24). That is, the compounds *rājayakṣmágṛhīta-* and *ūruskambhágṛhīta-* could be glossed as 'afflicted **with** the king's consumption', 'afflicted **with** paralysis of the thighs', rather than '**by** the king's consumption' etc.

(24) RV *hásta-cyuta-* 'propelled by means of the hand'
hásta-yata- 'controlled by means of the hand'
just like *devá-bhakta-* 'portioned out by the gods'
bhága-bhakta- 'portioned out by the portioners-out'

Finally, it is not clear how a passive origin of the *grāhayati*-formula can explain its word-order peculiarities or differences vis-à-vis the *arpayati*-formula: As I have shown elsewhere (1982b), while in the passive of the earliest (Rig-Vedic) mantra language patients appear to have more commonly preceded the instrumental-marked agent NPs, in Vedic Prose they normally follow. What we do not find anywhere is an about equal distribution of preposed and postposed orderings.

Even for the *grāhayati*-type, then, a passive derivation is far from certain.

5. What, then, about the alternative account of instrumental causees as resulting from the reinterpretation of instrumental-marked animate instruments?

In my 1981 paper I observed that there is ample precedent in Mantra Vedic and Vedic Prose for the use of such 'animate instruments' with non-causative verbs; cf. e.g. (25), as well as (3) above. Such instrumental NPs also occur with causatives of intransitive verbs, where again they can only be animate instruments, not causees; cf. (26).

(25) agnínā rayím aśnavat (RV 1.1.3)
'Through Agni one will gain wealth.'

(26) mitréṇaivá yajñásya sviṣṭáṁ śamayati (TS 6.6.7.3-4)
'Through Mitra he makes calm/appeases the good performance of the sacrifice.'

5.1. I further noted in my 1981 paper that Vedic Prose offers passages of the type (27) - (32), in which a putative (animate or inanimate) instrumental causee of a causative from a transitive verb is used parallel to the clearly animate or inanimate **instrument** NP of a non-causative transitive or a causative of an intransitive. (Parallel passages are set off in boldface. In order not to prejudge the interpretation of these examples, the causative passages are glossed with both a causee and an animate-instrument reading for the instrumental-marked NP.) As (28) shows, such parallels occur even in passages that contain the causative construction's 'source formula' (set off in square brackets).

(27) **śucaívaínaṁ viddhvá** | **ebhyó lokébhyo nirṇudya** | **vájreṇa**
non-caus.
bráhmaṇā stṛṇute | ... **yaṁ dviṣyắt táṁ dhyāyet** | **śucaívaínam**
non-caus.
arpayati (TB 3.3.11.4)
caus.
'Having pierced him with pain, having repelled him from these worlds, he lays (him) low with the thunderbolt (of) the sacred formula ... Whom he should hate, of him he should think. He makes pain afflict him/he causes affliction for him through pain.'

(28) prajāpater vā eṣa raso yad āpaḥ prajāpater evainaṁ **rasena** tarpayati
itr.caus.
sa enaṁ tṛptaḥ ... upatiṣṭhate ... [aśman te kṣud yaṁ dviṣmas taṁ te śug ṛcchatv iti] **yam eva dveṣṭi tam asya kṣudhā ca śucā cārpayati** (KS 21.7; similarly MS 3.3.5-6 [cf. (1b) and (5d) above])
caus.
'Now the waters are Prajāpati's essence; he (thus) gladdens him with Prajāpati's essence. He, gladdened, approaches. ["In the stone is your thirst; whom we hate, may your pain afflict him."] Whom indeed he hates, him he makes his thirst and pain afflict/of him he causes affliction through thirst and pain.'

(29) **váruṇenaivá bhrắtṛvyaṁ grāhayitvắ bráhmaṇā** stṛṇute
caus. non-caus.
(TS 2.1.8.2)
'Having caused Varuṇa to seize the rival/having caused the rival's seizure through Varuṇa, he lays him low by means of the sacred formula.'

(30) **táṁ váruṇenaivá grāhayitvắ víṣṇunā yajñéna** prắṇudanta
caus. non-caus.
aindréṇaivắsyendriyám avṛñjanta ... | ... **váruṇenaivá**
non-caus.
bhrắtṛvyaṁ grāhayitvắ víṣṇunā yajñéna prắṇudata
caus. non-caus.
aindréṇaivắsyindriyáṁ vṛṅkte (TS 2.1.4.4-5)
non-caus.

'Having caused him to be seized by/through Varuṇa, they drove him away through Viṣṇu, the sacrifice; they acquired his power with Indra's (bull) ... Having caused the rival to be seized by/through V., he drives him away through Viṣṇu, the sacrifice; he acquires his power through Indra's (bull).'

(31) yó jyógāmayāvī syāt tám eténa yājayed váruṇena hí vā eṣá pāpmánā gṛhītó ... yád vāruṇó **váruṇenai**vaínaṁ grāhayitvā stṛṇute
caus. non-caus.
kṛṣṇó bhavati támo vaí kṛṣṇáṁ mṛtyús támo **mṛtyúnai**vaínaṁ grāhayaty etád vaí pāpmáno rūpáṁ yát kṛṣṇáṁ kṛṣṇá iva hí pāpmā
caus.
pāpmánaivaínam abhíṣuvati (MS 2.5.6; sim. KS 13.2)
non-caus.
'Who should be long-ailing, for him he should sacrifice with that (sacrificial animal). For he is seized by Varuṇa, by sin ... As for its being of V., having caused V. to seize it/its seizure through V., he lays it low. It is black; black is darkness; black is death. He causes death to seize it/its seizure through death. Black is the shape/nature of sin, for sin is black as it were. He consecrates it by means of sin ...'

(32) tena vai sa tān **agninā** pāpmano bhogān apidahya ⌣
non-caus.
athaindreṇendriyaṁ vīryam ātmann adhatta ... (a)gninaiva
non-caus.
pāpmano bhogān apidahya ⌣ athaindreṇendriyaṁ vīryam ātman
non-caus.
dhatte ... tena vai sa tān **varuṇenā**surān grāhayitvā **viṣṇunā**
non-caus. caus.
yajñena prāṇudata ⌣ athaindreṇendriyaṁ vīryam ātmann
non-caus.
adadhād ... **varuṇenai**va bhrātṛvyaṁ grāhayitvā **viṣṇunā**
non-caus. caus.
yajñena praṇudate 'thaindreṇendriyaṁ vīryam ātman dhatte
non-caus. non-caus.
(KS 13.4)
'Having burned away those fruits of evil with this Agni, then through Indra he put power and strength in himself ... Having burned away the fruits of evil through Agni, then through Indra he puts power and strength in himself ... Having caused Varuṇa to seize these asuras/the seizure of these asuras through Varuṇa, he drove (them) away through Viṣṇu, the sacrifice, then through Indra he put power and strength in himself ... Having caused Varuṇa to seize the rival/the rivals' seizure through Varuṇa, he drives him away through Viṣṇu, the sacrifice, then through Indra he puts power and strength in himself.'

5.2. This parallelism between clearly animate instrumentals and possibly instrumental causees is interesting. However, it must be admitted that both types of noun phrases may run parallel to an instrumental-marked agent of a passive or passive-like construction; cf. (31), repeated for convenience, with the passive agent set off in bold and the parallel instrumental NPs in italics. Parallelism therefore may not be sufficient to establish a closer relationship between different types of instrumental-marked noun phrases.

(31) yó jyógāmayāvī syắt tám eténa yājayed **váruṇena** hí vắ eṣá
pāpmánā gṛhītó ... yád vāruṇó *váruṇenai*vaínaṁ grāhayitvắ
passive-like caus.
stṛṇute kṛṣṇó bhavati támo vaí kṛṣṇáṁ mṛtyús támo
non-caus.
*mṛtyúnai*vaínaṁ grāhayaty etád vaí pāpmáno rūpáṁ yát kṛṣṇáṁ
caus.
kṛṣṇá iva hí pāpmắ *pāpmánai*vaínam abhíṣuvati
non-caus.
(MS 2.5.6; sim. KS 13.2)
'Who should be long-ailing, for him he should sacrifice with that (sacrificial animal). For he is seized by Varuṇa, by sin ... As for its being of V., having caused V. to seize it/its seizure through V., he lays it low. It is black; black is darkness; black is death. He causes death to seize it/its seizure through death. Black is the shape/nature of sin, for sin is black as it were. He consecrates it by means of sin ...'

Moreover, the ordering of animate and inanimate instrumental instruments is different from what we find in the case of putative instrumental causees. Compare the statistics in (33).

(33) Order of Instrumental Instruments vs. Instrumental Causees vis-à-vis Direct Objects:

	DO + Instr.	Instr. + DO
Animate/inanimate instrument	40	62
Instrumental causee (cf. (23) above)		
arpayati-formula	30	2
grāhayati-formula	7	5

(Based on KS 6-8, 33; TS 2.3.1-14, 2.4.1.-14, 2.5.1-12; AB2.1-17, 8.1-21)

Note however that passages like (31), with parallelism between passive agent and putative instrumental causee are quite rare. Moreover, the word order statistics in (33) do not tell the total story for instrumental instruments. First of all, there is a considerable amount of variation in the relative ordering of instrumental instruments vs. direct objects; cf. (34). Secondly, much of this variation is the result of the fact that different formulaic expressions with instrumental instruments prefer different orders; cf. e.g. (35). And these different preferences are entirely comparable to the differences for the putative

instrumental causees of the *arpayati-* and *grāhayati*-types, for which see (23) as well as (33).

(34) Order of Instrumental Instruments vis-à-vis Direct Objects:

	DO + Instr.	Instr. + DO
(i) KS 6-8 and 33:		
Animate Instr.	Ø	4
Inanimate Instr.	5	23
Ambiguous (agni)	1	Ø
Total	6	27
(ii) TS 2.3.1-14, 1.4.1-14, 2.5.1-12:		
Total	27	16
(iii) AB 3.1-17, 8.1-21:		
Total	7	19

(35) Formulaic expressions with instrumental instruments:

DO + Instr.: oṣadhīr evá svéna bhāgadhéyena ⌣ úpa-dhāvati (TS 2.1.5.3)
'He has recourse to the plants by means of their own share.'
Similarly passim, always with DO + Instr.

Instr. + DO: chándasām evá rásena rásaṁ brahma-varcasám áva rundhe (TS 2.1.7.3)
'By means of the essence of the meters he obtains the essence (which is) sacrificial splendor.'
Similarly passim, always with Instr. + DO.

5.3. In fact, given this similarity in word order, as well as the textual parallelism between instrumental instruments and putative instrumental causees, the possibility arises that the *arpayati-* and *grāhayati*-formulas reflect a stage at which their instrumental-marked constituents had not yet been reinterpreted as causees but still functioned as instrumental instruments.

True, this view might be attacked by claiming that the word order characteristics of the *arpayati-* and *grāhayati*-formulas can be explained if their instrumental NPs are considered causees. For as noted in section 1 above, in the later madhyadeśa language, the following rule holds for causee case marking: Accusative case is unmarked, while instrumental case indicates that the causee is not affected or not benefiting from the action. The almost consistent postposing of the instrumental causee *śucā* 'pain' (or *kṣudhā* 'thirst') in the *arpayati*-formula therefore can be considered an iconic reflection of this pragmatic 'downgrading', since being inanimate, 'pain' (or 'thirst') is almost by definition not affected by the action. As for the *grāhayati*-formula, the nearly even ratio between postposing and preposing may be attributed to the fact that the causee, Varuṇa, is eminently animate, in fact divine: Being divine, Varuṇa would be fairly agentive and therefore would tend to be preposed. But being situationally conceived of as something of an instrument toward accomplishing the action, he would tend to be

downgraded, as not much affected by the action and of reduced agency, characteristics which would favor postposing. The nearly even ratio between postposing and preposing for this verb, then, would reflect these two conflicting tendencies.

Note however that in the ritualistic context of Vedic Prose, Varuṇa like the other gods associated with the ritual (such as Agni and Soma), is more or less on the same level of 'manipulability' by the priests as are inanimate instruments of the sacrifice, such as the libation spoon (*juhū*), the sacrifice (*yajña*), or the sacrificial formula (*brahman*). For linguistic reflections of this status, see (29) and (30) above, where *varuṇena* is, respectively, parallel to *brahmaṇā* 'by means of the sacrificial formula' and to *viṣṇunā yajñena* 'by means of Viṣṇu, the sacrifice'. His divinity, therefore, should not be expected to play so strong a role as to counterbalance the tendency toward postposing.

As in the case of the *śucā* 'pain' (or *kṣudhā* 'thirst') of the *arpayati*-formula, the instrumental *varuṇena* therefore is, as it were, **inherently** and generically 'downgraded'. According to the rule obtaining for the later language, however, instrumental marking of causees serves as a specific indicator of their downgrading **in a particular situation**. And the marking of such downgrading is meaningful only for those participants in an action who under normal circumstances would be expected to be affected by the action or to be capable of acting as agents, that is, for animate, especially human beings.

5.4. What is interesting and perhaps significant is that such meaningfully instrumental-marked causees are not found in the earliest Vedic-Prose texts (i.e. in the Maitrāyaṇī, Kāṭhaka, and Taittirīya Saṁhitās). They first appear in the Brāhmaṇas. Compare for instance the Śatapatha-Brāhmaṇa passage in (6) above, where the 'male' would appear to be an animate causee. However, since it is identified with the *vaṣaṭ*-call (an inanimate element of the ritual), its agency and animacy are severely reduced, as is its affectedness by the action. Similar passages are found elsewhere; cf. e.g. (36) where the 'subjects (of the kṣatriya)', i.e. human causees, are made to rise up to a kṣatriya simply because that is the way things should be done, not because they want to do so or because they stand to derive any particular benefit from doing so. (The person benefiting from the action is the kṣatriya.)

(36) yád āha víśvās tvā́m prajā́ upā́varohantv íti tád enam ābhíḥ
Nom.non-caus. Instr.
prajā́bhiḥ pratyávarohayati tásmād u kṣatríyam ā́yantam imā́ḥ prajā́
Instr. caus.
víśaḥ pratyávarohanti (ŚB 3.9.3.7)
'In that he says "Let all the offspring/subjects rise up to you,"
thereby he makes these subjects rise up to him. Therefore these
subjects, the vaiśyas, rise up to a kṣatriya as he approaches.'

Note similarly, and perhaps even more significantly, the passage from the Jaiminīya Brāhmaṇa in (37), which refers to a mock battle between an Aryan and a Śūdra, in which the Aryan is made to defeat the Śūdra. In parallel versions (cf.

(38)), including the earlier Kāṭhaka-Saṁhitā passage in (38a), we find the accusative, the unmarked case for causees. That is, the instrumental marking in (37) is a replacement of the accusative of (38), employed — it seems — to indicate that although being a genuine human causee, the Aryan is of reduced affectedness and agency, merely serving as a means to accomplishing the ritualistic and predetermined task of defeating the Śūdra.[8]

(37) tayor āryeṇa varṇena śaudraṁ varṇaṁ jyāpayanti (JB 2.404)
Instr.
'Of the two, they make the Aryan defeat the Śūdra.'

(38) (a) śūdrāryau carmaṇy āyacchete āryaṁ varṇam ujjāpayaty
Acc.
ātmānam eva ˘ ujjāpayaty (KS 34.5)
Acc.
'An Aryan and a Śūdra fight on (account of) the hide. He makes the Aryan win, (thereby) he makes himself win.'

(b) śūdrāryau carmaṇi vyāyacchete tayor āryaṁ varṇam
Acc.
ujjāpayaṁti... | ... yad āryaṁ varṇam ujjāpayaṁty ātmānam
Acc. Acc.
eva tad ujjāpayaṁti (PB 5.5.14-15)
'An Aryan and a Śūdra fight on (account of) the hide. They make the Aryan win ... In that they make the Aryan win, thereby they make themselves win.'

(An alternative interpretation may be that the passages in (38) differ from the one in (37) not only in chronology, but also in perspective: In (37), the focus is simply on the mock battle and insuring the proper, predetermined outcome, namely that the Aryan wins. That is, the Aryan, though a human causee, is situationally conceived of as merely a means to accomplishing the action. In (38), however, the focus is on the fact that through making the Aryan win, one makes oneself win. The causee *ātmānam* 'self', identical to the causer, here is conceived of as affected by the action and thus cannot be marked instrumental but requires the accusative. Parallelism, then, might account for the accusative case of *āryaṁ varṇam* 'the Aryan'.)

5.5. In addition to this difference in the pragmatic value of putative instrumental causees, early Vedic Prose and later Vedic Prose (as well as the classical language) differ in terms of the collocatability of the putative instrumental causees: Except for (near-)citations from earlier texts (including our formulas of (1)), later Vedic Prose does not ordinarily seem to offer passages of the type (27) - (32), in which putative instrumental causees like *śucā* or *varuṇena* are situationally parallel to instrumental instruments.[9]

The pragmatic value and collocatability of instrumental NPs in the *arpayati*- and *grāhayati*-formulas of early Vedic Prose, thus, differs considerably from that of instrumental causees in the later language. This lends further support to the

argument that in the early language, the instrumental NPs of these formulas are not causees, but instrumental instruments.

6. Against this view, it must be considered that the relationship between causative *arpayati*-constructions like (1b) and the active, non-causative source formula in (4) strongly suggests that *śucā* (*kṣudhā*) is in fact a causee, corresponding to the subject/agent *śuk* (*kṣut*) of the non-causative construction in (4); cf. the discussion in 3.2 above. Similar evidence for genuine causee status can be found for the *grāhayati*-formula, as well as its variants with putative causees other than Varuṇa. Compare for instance (39), which is a continuation of (31) above.

(39) paśúm badhnāmi váruṇāya rā́jña índrāya bhāgám ṛ́ṣabhám kévalo
hí | gā́trāṇi devā́ abhisáṁviśantu **yámo gṛhṇā́tu nírṛtiḥ**
Nom. non-caus. Nom.
sapátnān || íty etā́bhya evaínaṁ devátābhyo niryā́cya **mṛ́tyúr** vaí
Nom.
yámo mṛtyúnaivaínaṁ grāhayati (MS 2.5.6-7; sim. KS 13.2)
Nom. Instr. caus.
"'I tie down a (sacrificial) animal for king Varuṇa, a share for Indra, the bull, for (he) alone (is) suitable. May the gods surround the limbs; may Yama, (may) Nirṛti seize the rivals." Having begged it free from the deities with these two verses — Yama (is) Death —, he causes Death to seize it.'

7. How can these two conflicting interpretations of the instrumental marking in structures of the type (1) be reconciled?

I believe the most plausible explanation is the following: The instrumental marking of putative causees in the formulaic expressions of (1) represents an early Vedic Prose stage at which the reinterpretation of original instrumental instruments as instrumental causees (of reduced affectedness or agency) had not yet been fully accomplished. As a consequence, they retained much of their instrument nature, while being able to function also as causees corresponding to the subjects/agents of the corresponding non-causative expressions. (In later Vedic Prose, on the other hand, the reinterpretation had been carried through completely, and instrumental causees consequently no longer freely cooccurred with instrumental instruments.)

Such transitional vacillation, although uncomfortable for many versions of modern generative grammar (especially so-called restrictive theories), has been observed in many other syntactic changes and is eminently compatible with traditional views of syntactic change, as well as with Labov's general theory of linguistic change. (For recent empirical studies of similar transitional variation, compare for instance Ashby 1981, Chung 1977, Naro 1981, Timberlake 1977. Note also Hankamer's (1977) discussion of the implications of such variation for 'restrictive' syntactic theories.)

Notes

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[1]gati-buddhi-pratyavasānārtha-śabdakarma-akarmakāṇām aṇikartā sa ṇau | hṛ-kr-or anyatarasyām (4.1.52-53) = 'The causee of verbs of motion, cognition, consumption, speaking, and of intransitives [is classified as karman (i.e. as patient, which in the active is marked accusative, in the passive, nominative)]. *hṛ* 'take' and *kṛ* 'do, make' [are] optionally [classified as such].' Other verbs, including *hṛ* and *kṛ* when not following 4.1.53, get their causees marked instrumental.

[2]Putative causees with instrumental marking in structures with the preverb *sam-* (such as (a) below) are ignored in this study, since *sam-* tends to assign instrumental case even in non-causative constructions, as in (b). The instrumental case in such structures therefore may be attributable to the presence of *sam-*, rather than constituting instrumental causee marking. Compare the glosses of (a) and see Hock 1981 for further discussion.

(a) yát somakráyaṇyā pátnīṁ saṁkṣāpáyati ... (MS 3.7.7)
'In that he makes the Wife exchange views with the Soma-cow ...'
Or: 'In that he makes the Soma-cow look at the Wife ...' (?)

(b) marúdbhiḥ rudrā́ḥ sám ajānat(a) (TS 2.1.11.3)
'The Rudras agreed with the Maruts.'

[3]For different interpretations see Haudry 1977, Jamison 1976, 1977, 1983, Tichy 1980. Jamison considers instrumental causee marking a means of disambiguating accusative causees from accusative-marked direct objects. For an evaluation see Cardona 1978, 1981, Hock 1981, and note 8 below. Haudry and Tichy, on the other hand, believe that instrumental marking (and other non-accusative marking of putative causees) is an archaism, that Proto-Indo-European did not permit structures with two accusative-marked objects (or object-like constituents, such as causees), and that accusative causee marking therefore is an innovation. For Haudry's claim, cf. the discussion in Cardona 1978, 1981, Hock 1981. The arguments in these papers are applicable also to Tichy's hypothesis. Moreover, as demonstrated in Hock 1985b, double-object structures with accusative marking for both direct objects are found from the earliest stages of Sanskrit and continue to the latest stages. And in Hock MS, I show that (1) such double-object structures are found in a large variety of other Indo-European languages (cf. e.g. (a)-(c) below); (2) in a number of these languages, both of the direct objects are eligible to become subject in the passive whereas non-direct objects cannot, cf. e.g. (c.ii/iii), (d.ii/iii); (3) in most of these languages this type of structure is or becomes moribund (with one or the other, or both, of the accusative-marked direct objects tending to be marked in a different case), cf. e.g. the developments in German, where Middle High German has alternative case marking optionally (d.iv/v), while Modern German has it obligatorily (d.vi-viii). Such double-object structures therefore are more likely to be inherited than innovated.

(a) (i) fṯō mā sāstū vahiṣtā (Avestan)
Acc. Acc.
'May he instruct me (about) the best things.'

(ii) taṯ θwā pərəsā
Acc. Acc.
'That I ask you.'

(iii) vahištəm θwā ... yāsā
Acc. Acc.
'I request the best (from) you.' (Old Persian)

(iv) xšaŝam šim adam adînam
Acc. Acc.
'I deprived him (of) his kingdom.' (Latin)

(b) (i) iter omnis celat
Acc. Acc. act.
'He hides (his) trip (from) all.'

(ii) (ego) celor rem
Nom.pass. Acc.
"I am concealed the matter." = 'I am kept in the dark about the matter.'

(iii) cur haec celata me sunt?
Nom. pass. Acc.
'Why have these things been concealed (from) me?'

(c) (i) doh hal er die maget daz (Middle High German)
act. Acc. Acc.
'But he concealed that (from) the girl.'

(ii) er ist alle dise werlt verswiget
Nom.Acc. pass.
'He is kept in the dark (about) all this world.'

(iii) der sol dich ... immer wol verholen sin
Nom. Acc. pass.
'That (treasure) shall forever be concealed (from) you.'

(iv) mine missetat der werlte hal
Acc. Dat. act.
'Hid my misdeed (from) the world.'

(v) des ih niemen hil
Gen. Acc. act.
'(Of) that I do not keep anyone in the dark.'

(vi) Er verhehlt mir das (Modern German)
act. Dat. Acc.
'He conceals that to (= from) me.'

(vii) Er verhehlt das vor mir
act. Acc. PP
'He conceals that from me.'

(viii) *Er verhehlt mich das
act. Acc Acc.
'He conceals that from me.'

[4]Here as elsewhere in this paper I refer to *ta*-participle structures of transitive verbs as 'passive-like'. See Hock 1986 for the differences and similarities between these and (finite) passives. (On *ta*-participles in the Aśokan inscriptions, see also Andersen 1986.)

[5]As the discussion in section 3.2 shows, Cardona actually considers the *arpayati*-type synchronically lexicalized. But he does cite the correspondence between *śucārpayati* and *śucā hy ṛtāḥ* as part of the evidence for his claim. For the rest, his discussion centers on Vedic forms of the type *śṛṇve* 'is heard; is famous'. However, as far as I can tell, except perhaps for the *grhe/grāhayati* to be discussed in section 4, no Vedic causatives can be unambiguously related to such forms in their passive reading. Causatives relatable to these forms in their intransitive/stative (and perhaps lexicalized) readings, on the other hand, do not exhibit instrumental-marked causees. What we do find in the Rig-Veda are (1) locatival expressions for those among whom somebody is caused to be famous, comparable to what we may find in the non-

causative (cf. (a) and (b)); (2) accusative or dative (less likely, ablative) marking for the person caused to be famous (cf. (b) and (c)).

(a) ā́ no jáne śravayatam yuvānā́ (RV 7.62.5)
Oblique Loc.
'O youths, make us famous among the people.'

(b) dabhrám cid dhí tvāvátaḥ kṛtám śṛṇvé ádhi kṣámi (RV 8.45.32)
Acc. 'on earth'
'For the good done by one like you is famous on earth.'

(c) prá ca śruta śrāvaya carṣaṇíbhyaḥ (RV 6.31.5)
Dat. (Abl.?) pl.
'And, O famous one, bring fame to the people = make the people famous.'

[6]Lüders sees further support in RV *gṛhu-* 'beggar', which he feels is better derived from *gṛdh-* than from *gra(b)h-*. But note that this word has received yet another proposed etymology, namely from *garh-* 'lament'; cf. Mayrhofer 1963:sub *gṛhu-* with references. Its history therefore is multiply ambiguous and thus of no help in the interpretation of *gṛh-*.

[7]In establishing word-order patterns, structures whose direct objects, causees, agents, patients, etc. consist entirely of a clitic pronoun or of a form of the demonstratives *sa/tad* and *eṣa/etad* are ignored in the discussion of word order. For in Vedic Prose the pronouns of such structures almost invariably go into clause-initial strings; cf. the discussion and references in Hock 1982a. Their order, therefore, is fixed by principles not connected with their status as direct objects, causees, etc.

[8]Stephanie Jamison (personal communication, 1987) suggests a different motivation for the instrumental causee marking in (38). Following her original proposal (1976, 1977, 1983), she believes that the instrumental here serves to resolve the ambiguity that would have resulted from accusative marking for both the causee and the direct object/patient; compare (a) vs. (b) [= (37)] below.

(a) *tayor āryaṃ varṇaṃ śaudraṃ varṇaṃ jyāpayanti
Acc. Acc.
'Of the two, they make the Aryan defeat the Śūdra.'

(b) tayor āryeṇa varṇena śaudraṃ varṇaṃ jyāpayanti (JB 2.404)
Instr. Acc.
'Of the two, they make the Aryan defeat the Śūdra.'

It may at first sight appear tempting to combine such a disambiguating explanation with the historical explanation of instrumental causee marking proposed in this paper. For disambiguation is a much more easily verifiable concept than 'reduced agency' or the like. However, we have to consider that virtually all sentences with causative constructions occur not in isolation, where ambiguity might perhaps arise, but in contexts that make it perfectly clear which participant in the action is the causee, and which is the object/patient.

Thus in (37) = (b) above, the context is a mock battle with predetermined outcome: In this context the Aryan is expected to win, and only the Aryan therefore is a candidate for being the causee. Similarly, in (1a) above, the context is as follows: The creatures, having been created by Prajāpati, rebelled against him. Therefore, Prajāpati had Varuṇa seize them. (Having the creatures seize Varuṇa would have made no sense whatsoever.) Or consider the second example in (1b), reproduced as (c) below. Here, the establishment of *śuc-* as the agent of *r(cch)-* in the source formula makes it quite clear that it must be the causee of *arpayati*. And since the source formula, even if not overtly referred to, forms the background also of structures of the type (1b), there can again be no doubt about the identity of causee and patient.

(c) [yáṃ dviṣmás táṃ te śúg ṛchatv íty] yám evá dvéṣṭi tám agnéḥ śucā́payati (MS 3.3.5)
Acc. Instr.
'["Whom we hate, him your pain should afflict."] Whom he hates, him he makes Agni's pain afflict.'

Or consider examples (6) and (38), reproduced as (d) and (e) below. Here again, the prior occurrence of the non-causative structure makes the identification of causee and patient completely unambiguous, and so do 'real-world' knowledge and expectations.

(d) paścād vai parīṭya vṛṣā́ vṛ́ṣṇim áśvasya dádhidrāvayati tád ene ubhé purástāt kṛtvā́
Nom. non-caus.
vṛ́ṣṇā vaṣaṭkā́reṇa _ áśvam dádhidrāvayati (ŚB 1.7.2.12)
Instr. caus.
'Having approached from behind, the male approaches the female (sexually). Thus, having placed the two (females) [= the anuvā́kyā (f.) and the yā́jyā (f.) verses] in front, he causes the male, the vaṣaṭ-call (m.), to approach them (f.) [sexually from behind].'

(e) yád āha viśáḥ tvā́m prajā́ upāvárohantv íti tád enam ābhíḥ prajā́bhiḥ
Nom. non-caus. Instr.
pratyávarohayati tásmād u kṣatríyam ā́yantam imā́ḥ prajā́ viśáḥ pratyávarohanti
caus.
(ŚB 3.9.3.7)
'In that he says "Let all the offspring/subjects rise up to you," thereby he makes these subjects rise up to him. Therefore these subjects, the vaiśyas, rise up to a kṣatriya as he approaches.'

If instrumental causee marking were in fact a device to avoid ambiguity, it would be difficult to account for the appearance of instrumental-marked causees in these examples — in spite of their lack of contextual ambiguity. And as examples like (c) show, such passages are attested in the earliest layer of Vedic Prose, that of the Maitrāyaṇī-Saṁhitā.

On the other hand, examples like (f) - (h) below show that accusative marking of both the causee and the object is perfectly possible in passages with causees and objects of the same degree of animacy, passages which might be ambiguous — if they occurred in isolation. But what, again, helps to disambiguate these passages is context, as well as 'real-world' knowledge or expectations. In addition, it appears that in such potentially ambiguous passages, word order may help to disambiguate in a manner similar to what Aralikatti (this volume) has observed for factitive constructions in modern spoken Sanskrit: Excepting cases where pronouns are involved, whose order in the clause is fixed by other principles (cf. note 7 above), the order almost invariably is causee before object. This contrasts with the much freer order between instrumental-marked causees and accusative-marked direct objects. Note here again that examples with such 'accusative doubling' are attested in the Maitrāyaṇī-Saṁhitā, the earliest layer of Vedic Prose.

(f) (a)mum enam anvā́rambhayati (MS 2.1.2)
Acc. Acc.
'He makes him$_i$ hold on to him$_j$ (i.e. to someone else).'

(g) óṣadhīr evá phálam grāhayati tásmād óṣadhayaḥ śīrṣán phálam gṛhṇanti
Acc. Acc. caus. Nom. Acc. non-caus.
(MS 3.1.6, 3.6.8, 3.9.3; sim. KS passim)
'He makes the plants take = bear fruit. Therefore the plants bear fruit on their head.'

(h) chándāṁsy evaítád yajñám anvā́yātayati (ŚB 3.4.1.23)
Acc. Acc.
'He makes the meters attach to the sacrifice.'

Given this evidence, the claim that disambiguation played a role in the origination of instrumental causee marking is difficult to substantiate.

(The accusative causee marking of (g) above vs. the instrumental marking in (1a) etc. — both with *grāhayati* — and many similar examples in which the same causative verb collocates either with instrumental or with accusative causees has implications also for Bubenik's (1987) claim that in the texts studied by him, the two case markings are virtually in complementary distribution. The evidence amassed here, as well as in Hock 1981, suggests that in the

language at large, there are no restrictions on what classes of verbs permit instrumental or accusative causees. Rather, as noted above, the selection of one or the other causee marking is in the language of madhyadeśa determined by pragmatic considerations, independent of the lexical class to which a given verb may belong. For the different treatment in Pāṇini's grammar and its possible relation to the madhyadeśa situation see Hock 1981, and compare Deshpande 1983 for other syntactic differences between Pāṇini's grammar and what I call the language of madhyadeśa.)

[9]Example (27), reproduced below as (a), is a rare exception and seems to result from a conflation of two earlier, semantically similar but formally distinct passages, one being the formula of (1a), the other the passage in (b) below which in the earlier text of the Kāṭhaka-Saṁhitā occurs without any trace of the *arpayati*-formula.

(a) śucaívainaṁ viddhvā́ | ebhyó lokébhyo nirṇudya | vájreṇa bráhmaṇā stṛṇute
non-caus.
| ... yaṁ dviṣyā́t táṁ dhyāyet | śucaívainam arpayati (TB 3.3.11.4)
caus.
'Having pierced him with pain, having repelled him from these worlds, he lays (him) low with the thunderbolt (of) the sacred formula ... Whom he should hate, of him he should think. He makes pain afflict him/he causes affliction for him through pain.'

(b) (i)dam aham amum amuṣyāyaṇam amuṣyāḥ putraṁ śucā vidhyāmīty ...
non-caus.
(ś)ucaivainān vidhyati (KS 34.17)
non-caus.
'"Here I pierce with pain that one, the descendant of that one, the son of that woman," (with these words) ... he pierces them with pain.'

The syntax of direct speech in Vedic*

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1. The study of Vedic syntax provides a built-in source of constant frustration for the investigator, as everyone knows who has ever dealt with the subject. For the question arises: How many of the syntactic features we observe are characteristic of the entire Vedic language (if we can use such a term) and how many are special to the particular genre of the text under consideration. We have, to put it grossly, at least two distinct strata of texts,[1] separated by a number of centuries even in the most conservative estimate. The first contains the highly wrought poetry of the Rig-Veda (hereafter RV) and other mantra texts. Comparison of similar texts in this and other traditions (e.g. Pindar in archaic Greece) forces us to assume the possibility of serious syntactic distortion and exaggeration. The syntax of the Rig-Veda is likely to have been pushed to the limits, the limits even of intelligibility, for poetic effect.

On the other hand, we have Vedic Prose. This looks like a better candidate for 'ordinary language' and has been taken as such by most of us, starting at least with Delbrück. But it may be, in its way, almost as artificial as the Rig-Veda. The language of Vedic Prose is a kind of technical discourse, clearly honed for stylized scholarly exegesis and debate. Impressionistically, it seems to have been developed by restricting the possible types of expression and by investing certain terms, particles, and syntactic constructions with highly conventional, discourse-shaping values. It is about as much a specimen of ordinary language as the modern language of the law or even of computer programs.

So we face two problems: (i) Can we separate the syntactic effects of the discourse style from the syntactic characteristics of the language as a whole? (ii) As we already noted, the two major bodies of Vedic texts are chronologically quite distinct, as well as belonging to separate genres. Their syntax also differs in a number of significant ways. How much of this syntactic difference is attributable to chronology, to real syntactic change between the mantra period and the prose period, and how much to the distorting effect of genre? How close are the hypothetical grammars of the two periods?

I don't think this is an ultimately soluble problem. It will continue to be debated as it has been debated in the past. But I do think there is a potential window — perhaps peephole would be the better term — on this issue, namely looking at instances of quoted direct speech in the texts. These have the possibility of showing features closer to a hypothetical colloquial standard, less

affected by the rhetorical texture of the texts in which they are embedded. Or, at least, this approach offers some interesting hypotheses to test: (i) Does the direct speech in any particular text differ systematically from the rest of the text? If so, in what direction(s)?[2] (ii) Do the samples of direct speech extracted from various texts share features that set them off as a class? In particular, are there shared syntactic peculiarities in the direct speech from the two chronological periods sketched above?

I of course cannot treat both these questions in detail here, but give as tentative short answers to these questions: (i) yes — direct speech does differ from the rest of the text in which it finds itself; (ii) sort of — some differences seem characteristic of speech in a variety of texts; some are confined to a particular text or text stratum.

I will here, wisely, confine myself mostly to the first question. This is very much still at the stage of interesting hypothesis, and I will primarily suggest possible directions that investigations could take, rather than the final results of these investigations, which would need more rigorous controls than I can provide at this stage.

However, before I do this, I need to deliver some methodological cautions. First, though this may be an interesting hypothesis, its **results** can be interesting only in one direction. If an investigation of quoted speech in a variety of texts shows that the speech differs in no particulars from the text in which it appears, this obviously does not have to mean that the texts in question accurately reflect the colloquial language of their place and time. It is quite as likely that the speech was composed to fit the same genre patterns as the rest of the text.

The only way the results can be interesting is if quoted speech shows clear, systematic differences from the rest of the text, though even in this case this does not guarantee that the quoted speech is an accurate reflection of colloquial language. There may well be a stereotyped style for speech as artificial as that of the other rhetorical patterns. Nonetheless, the identification of the syntactic features of such a sub-genre should be of some value.

Or rather, we should speak of a **set** of such sub-genres: I have been proceeding as if quoted speech were unitary in Vedic, but in fact there are many varieties of direct speech in Vedic, most of which are easily distinguishable by their content and context.

First, I must admit that on a trivial level the **whole** of the Vedic corpus consists of direct speech, in that we are dealing with oral promulgation and transmission, even when the speaker/hearer relation is not prominent in the situation. On a somewhat less trivial level, all or almost all of texts like the Rig-Veda is emphatically direct speech. The hymns are directed to a god or gods, whose role as listener is constantly stressed, with vocatives, imperatives, and other second-person references in verbs and pronouns. The listening presence of the other officiating priests is also often an overt part of the ritual situation, and the composer of the hymn frequently adopts the role of first person/speaker. Nonetheless, in neither of these cases is the discourse presented as anything akin

to ordinary language. Indeed, in the Rig-Veda the distance from it is often underscored — the theme of the new, the newer, the newest hymn.

In prose we can readily identify several types of direct speech, some presumably meant to approximate ordinary language, some clearly not:

(i) A very large proportion of apparent speech in Vedic Prose consists of quotations of named or nameless participants in the on-going scholarly discourse or debate. These are introduced by *íti mīmāṁsante* 'thus they debate' (for questions), *brahmavādíno vadanti* 'the theologians say', and by *íty āhur, tád āhur*, etc. 'they say'/'some say'. The formula for named sages is usually of the type *etád dha sma (vā́) āha PN*.[3] The speech in these quotations conforms pretty much to the stereotyped patterns of theological exposition and disputation. They show up as direct speech, rather than simply as part of the discourse, only because they either represent competing views (to those of the Śākhā in question) or the views of sages important enough to confer prestige on the cited opinion. The evidence of this type of quotation can for the most part be set aside.

(ii) *Tád āhur* and its fellows, as well as quotations of named sages, occasionally introduce not theological platitudes, but salty sayings, pieces of folk wisdom, or general opinions. These can be quite interesting, if somewhat cryptic. Unfortunately they are relatively rare.

(iii) Desires, fears, thoughts, etc., especially those giving the purpose of a particular ritual action. These are introduced by *yádi kāmáyeta* 'if he should wish...', etc. They fall syntactically into a few limited patterns, but may offer confirmatory evidence.

(iv) Speech (as well as thoughts, fears, perceptions) in mythological and semi-mythological episodes. This seems by far the most valuable category for our purposes. The situations are far less restricted than in (iii); the expository style that taints (i) is absent; and there is simply far more and far clearer material than in (ii). One could object, I suppose, that the speakers are usually gods or the like, which might evoke a pompous and falsely archaizing style, but considering the situations they get themselves into and the starkness with which they address each other, this seems an overdelicate caution. All my quotations come from this type of speech, unless otherwise noted. However, I will give a few examples of the first three types now:

Type (i):

(1) hotavyā́3n ná hotavyā́3m **íti mīmāṁsante** (MS 1.8.7)
"'Is it to be offered or not to be offered?" they debate.'

(2) kásmai kám agnihotráṁ hūyatā **íti brahmavādíno vadanti** (MS 1.8.1)
"'For what purpose is the Agnihotra offered?" say the theologians.'

(3) **tád āhuḥ** páñcadaśa sāmidheníḥ kāryā́ ná saptádaśéti (MS 1.7.3)
'(But some) say about this "Fifteen Sāmidheni verses are to be performed, not seventeen."'

(4) **tasmād āhur** āgneyo vāva sarvaḥ paśuḥ ... íti (AB 2.6)
'Therefore they say "Every paśu belongs to Agni."'

(5) **etád dha sma vá āha nāradá** idáṁ vắvágnyupasthắnam āséti (MS 1.5.8)
'About this Nārada used to say "This was the Agnyupasthāna."'

Type (ii):

(6) **tád āhur** yáthā vṛṣaló nijáḥ púklakaś cíkitsed eváṁ sá íti (MS 1.6.11)
'About this they say "He's just like a low man who would wish to appear a native Puklaka."'

(7) **tád āhuḥ** káḥ śréyāṁsaṁ víṣuptaṁ bodhayiṣyatîti (MS 3.4.5)
'About this they say "Who will wake up his boss when he's asleep?"'

Type (iii):

(8) **yáṁ kāmáyeta** badhiráḥ syād íti... (MS 3.1.9)
'About whom he should wish "He should be deaf," ...'

(9) **yádi mányetādānīyắyādām** íti (MS 4.2.8)
'If he should think "I have given to one unworthy to be given to" ...'

(Type (iv) will be amply illustrated below.)

A word on the data base. I have looked at all passages with *íti* in the Rig-Veda and Atharva-Veda. Though obviously much direct speech in these two texts is not marked by *íti*,[4] this still gives a reasonable and unquestionable sample. I also looked at *āha*/*āhur* and *prach* in these texts. In prose I have extracted all quoted speech (as marked by *íti*) from the Maitrāyaṇī Saṁhitā (MS) and from the first three books of the Aitareya Brāhmaṇa (AB), with smaller collections from the Kāṭhaka Saṁhitā (KS) and Śatapatha Brāhmaṇa (ŚB); and I have excerpted all speech in mythological contexts from the Taittirīya Saṁhitā (TS) and a goodly sample of the same from the Jaiminīya Brāhmaṇa (JB). In all texts I have ignored quoted mantras marked by *íti*. Note that in the quotations that follow I have generally omitted *íti*, to allow the actual characteristics of the speech to emerge more clearly.

In what follows I will concentrate on prose texts, particularly the early prose of the Black Yajur Veda [= Maitrāyaṇī Saṁhitā, Kāṭhaka Saṁhitā, Taittirīya Saṁhitā], and for statistical questions will rely entirely on the Maitrāyaṇī Saṁhitā. I will first present a sampling of syntactic features which, impressionistically, seem to differ from those of the surrounding prose. Obviously these would require more investigation before being categorically stated, in particular a more systematic investigation of a control sample of non-direct speech.

None of these impressions or suggestions seems particularly startling in itself. In fact, they are almost what one would predict. Nonetheless, it seems significant that these differences seem to be reflected systematically in quoted direct speech.

After these somewhat anecdotal observations I will present in more detail a case in which this type of investigation seems already to be bearing fruit,

allowing us insights into a distinction in the grammar that is difficult or impossible to recover through an unselective study of the texts.

Anyone who regularly reads Vedic Prose has a general impression of what it looks like. The prose is what I will call heavily signposted. It has an abundance of elements whose primary function is to tell us where we are in the discourse and where to go next: a variety of particles (*vaí, evá, ha, átha*, etc.), whose function is often difficult to determine — they frequently seem to be mere postpositive punctuation —, as well as subordinating conjunctions (*yád, yádi*, etc.), pronominal forms in adverbial usage (*etád, téna, tásmāt*, etc.), and numerous referential pronouns, especially from the *sá/tád* paradigm. The verbal system is still functioning well, but there is increasing reliance on non-finite forms, particularly past participles, gerundives, and gerunds. The passive voice, even in finite forms, is growing more common. This general impression is very different from that given by the extracts of direct speech.

Let us begin with the verb: Finite forms overwhelmingly predominate in direct speech, with non-finite forms almost vanishingly rare. In all the examples of direct speech in mythological passages in the Maitrāyaṇī Saṁhitā, there are three gerunds, four predicated past participles (two of them negated), and no gerundives. In this same sample there are approximately 350 finite-verb forms. Passive forms are also rare: only five finite passives out of these 350 finite verbs.

Particles and third-person pronominal forms also seem relatively rare. This rarity is harder to quantify than in the case of verbs (or at least more time-consuming), but their absence contributes very strongly to the peculiar flavour of direct speech in Vedic Prose, its stripped down, abrupt quality. Cf. the stereotypical exchange in (10), between the gods and the Aśvins, who are assisting the gods in one of their schemes.

(10) (Gods to Aśvins:) idáṁ yajñásya śíraḥ prátidhattam
'Replace this head of the worship.'
(Aśvins to gods:) bhāgó nā astu
'Let us have a share.'
(Gods to Aśvins:) vṛṇā́thām
'Choose!'
(Aśvins to gods:) gráhaṁ nau gṛhṇantu somapīthám áśnavāvahai
'Let them draw a cup for us. Let us attain the soma-drink.' (MS 4.6.2)

We will return to particles shortly. For the moment let us examine pronouns a bit more closely. Only one pronoun seems significantly under-represented in speech, namely *sá/tád*. The first and second person pronouns are quite common, even when context does not seem to require them; cf. e.g. (11) and (12).

(11) mitró '**hám** asmi **nā́hā́ṁ** haniṣyāmi (MS 4.5.8)
'I am Mitra/a friend; I won't smash (him = Vṛtra).'

(12) **ahaṁ** prathamaḥ pibeyam **ahaṁ** prathamaḥ pibeyam (AB 2.25)
'I would drink first; (no,) I would drink first.'

Likewise the pronoun *ayám* and, to a lesser extent, the pronoun *asaú*, in other words the real demonstratives, are quite common. In expository prose it is these pronouns that are relatively rare, except in conventionalized pregnant uses such as *asaú* (m.) 'yonder (sun)', *iyám* (f.) 'this (earth)', *idám* (n.) 'this (world), here', *imé* (m. pl.) 'these (worlds)'. For example, in a randomly chosen non-direct-speech section of the Maitrāyaṇī Saṁhitā (3.9.1), there were approximately twenty forms of *sá/tád*, ten of *eṣá*, but *ayám/asaú* occurred only in the expressions *imé lokāḥ* 'these worlds', *asaú lokáḥ* 'yonder world', and *asaú ādityáḥ* 'yonder sun'.

On the contrary, in direct speech, *ayám/asaú* regularly appear both pronominally and adjectivally. Not counting the pregnant uses mentioned above, there are more than twice as many forms of *ayám/asaú* as of *sá/tád* in direct speech in the Maitrāyaṇī Saṁhitā. Moreover, their functions are relatively clearly differentiated. *Ayám/asaú* serve as the normal unmarked third person pronouns, as in the following examples:

(13) ná vā **iyám imám** itthaṁ mṛṣyate (MS 1.5.12)
'She (Yamī) does not forget him (Yama) thus.'

(14) **ayáṁ** vāvédaṁ bhaviṣyati
'He will thrive here.'
ádhāve**mắny asya** śīrṣắṇi chinddhi (MS 2.4.1)
'Run here! Split these heads of his.'

(15) yady **ayaṁ** mariṣyaty **anenedaṁ** samāpayiṣyāmaḥ (JB 2.160)
'If he will die, we will complete it with **him**.'

In contrast, *sá/tád* is restricted to closely regulated, discourse-based positions. In two-thirds of the occurrences of *sá/tád* in direct speech in the Maitrāyaṇī Saṁhitā, it is the correlative of a relative pronoun *yá-* in the immediately preceding clause. In almost all of the remaining cases its referent is overtly expressed in the preceding clause. In only three cases can I find a *tá*-form without immediately preceding grammatical reference. (All three of these are in close proximity in the text (3.8.3, 3.8.5 [2x]); in fact, two of them occur in the same sentence.) Cf. the following examples.

(a) *yá-* precedes:

(16) **yád** atiricyáte **tán** máma (MS 2.2.8)
'What's left over, that's mine.'

(b) The actual referent precedes:

(17) bahávo vaí me **samānắs té** mā vakṣyanti (MS 1.6.12)
'Many are the same as me. They will convey me.'

(c) Exceptionally, independent *sá*

(18) íhá vā **sá** ihá vā (MS 3.8.3)
'Is it here or is it here?'

The motivation for favoring *ayám/asaú* over *sá/tád* is obvious. The former are true demonstratives. In a speech situation, the deictic value of these words can be fully utilized. *Sá/tád* is far more discourse-dependent. In expository prose it serves to knit together the individual sentences, to straighten out complex sets of

referents, and to announce or emphasize key elements in the discourse. Cf. the following sample sequence:

(19) jī́ryati vā́ **eṣá** ā́hitaḥ paśúr hy àgnís **tád etā́ny** evā́gnyādhéyasya hávīṁ̃ṣi saṁvatsaré-saṁvatsare nírvapet **téna** vā́ **eṣá** ná jī́ryati **ténainaṁ** punarṇavám karoti **tán** ná sū́rkṣyam **etā́bhir** evā́gneyapāvamānī́bhir agnyādhéyasya yājyānuvā́kyābhir upasthéyas **téna** vā́ **eṣá** ná jī́ryati **ténainaṁ** punarṇavám karoti (MS 1.5.6)
'(Once) laid, **he** [Agni] (**begins** to) age. For Agni is an animal. **Thus**, he should offer **these** oblations of the Agnyādheya every year. **By this he** [Agni] does not age. **By this** he [the sacrificer] makes him [Agni] new again. **This** is not to be heeded. He [Agni] is to be honored **by these** "Agni pavamāna" yājyānuvākya(-verses) of the Agnyādheya. **By this he** truly does not age. **By this** he makes him new again.'

These uses are essentially unknown in direct speech, especially the first, where *sá/tád* functions as a sort of sentence connective. The only place where we see anything like the familiar independent use of these forms in direct speech is in *eṣá/etád*, whose major function may be to refer to elements already in the discourse but which have not been overtly mentioned in the immediately preceding clause, perhaps when strong deixis would be inappropriate. (Similarly Delbrück 1888:219; cf. also Hale To Appear, with slightly different conclusions.) *Eṣá/etád* is especially common when the referent occurs in non-direct speech just preceding direct speech. Cf. e.g. example (20).

(20) [prajā́patir vā́ etám amanyata **sómaṁ** hoṣyáṁs tám agnír abravīn] ná máyi tvám **etám** asuryàṁ sómaṁ hoṣyasy áśṛtam advitīyám (MS 4.7.4)
'[Prajāpati thought this when he was about to offer soma. Agni said to him:] You will not offer in me this Asuryan soma, unmixed, without a second.'

There may be a further functional difference between *sá/tád* and *ayám*, to be seen in their behavior with relative clauses: There is some slight evidence that when the relative clause precedes the main clause (by far the more common situation), the referent in the main clause will be *sá/tád*. But postposed relatives will correlate with a form of *ayám* in the main clause.[5] Cf. the following examples.

(21) víṣṇā **éhīdám** ā́hariṣyāvo **yénāyám** idám (MS 2.4.3)
[= TS 2.4.12.3]
'Viṣṇu, come here! Let's take **that by which** he is this (world).'

(22) índro vā́ **idám** abhūd **yád** vayáṁ smáḥ (TS 6.4.6.2)
'Indra has become **that which** we are.'
[Cf. TS 2.1.4.4, 3.3.7.1; MS 1.6.12 (?)]

(23) mahā́n vā́ **ayám** abhūd **yó** vṛtrám ávadhīt (TS 6.5.5.3)
'**He** has become great, **who** slew Vṛtra.'

(24) **ayáṁ** vaí jyótir **yá** idáṁ támo 'pā́badhīt (ŚB 4.3.4.21)
'**He** is the light, **who** smashed away this darkness.'

There are some apparent counterexamples in the Taittirīya Saṁhitā to this distribution of pronouns with relative clauses. In all cases the construction of the sentence is peculiar:

(25) ṛdhnávad ít **sá yó** metáḥ púnaḥ saṁcinávat (TS 5.5.2.1)
'**He** will thrive **who** will pile me up again from here.'

(26) tábhyaḥ **sá** nír ṛchād **yáḥ** | naḥ prathamò 'nyò 'nyásmai drúhyāt (TS 6.2.2.1-2)
'**He** will go away from these (bodies) **who** first among us is hostile to another (of us).'

(27) áva **táṁ** kā́mam arutsmahi **yéna** kā́mena nyáṣādāma (TS 7.5.2.1)
'We have obtained **that** wish **with which** wish we "sat down to" [=undertook] (the ritual session).'

Note the unusual noninitial position of the demonstrative in these examples. Although evidence is scanty, I think there may be a subrule of the Taittirīya Saṁhitā whereby the relative clause is postposed when the resumptive *sá/tád* pronoun cannot be initial in its clause. In all other instances in direct speech in the Taittirīya Saṁhitā and in all but a very few in the Maitrāyaṇī Saṁhitā, *sá/tád* takes first position when a relative pronoun is its antecedent. (Cf. e.g. MS 2.2.8 = example (16) above.) The Maitrāyaṇī Saṁhitā parallel to TS 5.5.2.1 has the normal order relative clause—main clause:

(28) **yó** metáḥ saṁcinávad ardhnúvat **sá** (MS 3.4.8)

In both texts the verb in the main clause is fronted and clearly emphatic (note TS *ít* in (25) above), so that *sá* cannot take its usual initial position.[6]

The other two Taittirīya Saṁhitā passages also then display this subrule; but they involve additional complications that are better treated in a note.[7]

Before turning to a further consideration of particles, let me comment briefly on word order. So far, I have noticed no significant deviations from the normal order of expository prose. Constituents tend to stay together, allowing for the usual interruption of enclitics and particles, but the order of major NPs seems relatively free, as in ordinary prose. Verbs tend to be final, as is usual, though I have noticed a tendency for verbs in non-overtly-marked questions to be fronted. The clearest example is the following.

(29) **íše** 'háṁ brāhmaṇáyoḥ ... íśiṣa [sic] hí ... átithipatir vā́tithīnām **īṣṭe** (MS 4.8.1)
'Am I master of the two brahmins? ... You are master. A "master of guests" is master of (his) guests.'
(Note the final *īṣṭe* in this answer.)

Imperatives can be fronted but don't have to be. Cf. the example in (30) vs. the ubiquitous *bhāgó me 'stu* 'Let me have a share', as in (48) below.

(30) **dattá** no 'syáḥ pṛthivyā́ḥ (MS 4.1.10)
'Give us (some) of this earth.'

Tmesis (i.e. separation of the preverb from its verb) is quite common, perhaps more common than in ordinary prose, though I have not investigated a control group. Cf. (31) - (33) for examples.

(31) **sáṁ** me yajñáṁ **sthāpaya** (MS 4.8.1)
'Complete my worship.'

(32) **ápa** mát krūrám **cakrúṣaḥ** paśávaḥ **kramiṣyanti** (TS 6.4.8.2)
'Cattle will stride away from me, (the one) having done a cruel thing.'

(33) **ud** ita **iyām** (JB 1.184 and passim)
'Might I go up from here.'
(Cf. also TS 7.5.2.1/KS 33.1 = example (27) above)

Now to particles again. As we all know, particles are among the most obvious — and the most elusive — features of Vedic Prose. They are ubiquitous, but slippery as to meaning and function. Yet in a discourse style where everything else seems so controlled, it seems unlikely that the choice of particle would be random. In a typical stretch of Maitrāyaṇī Saṁhitā prose (without direct speech), approximately twice as many sentences contain a particle as do not. Of those that do, *vaí* is the most common; *evá* about half as common; and the class of other particles (*hí, ha, tú, u*, etc.) is in total somewhat less common than *evá*. But in the direct speech of the first two books of the Maitrāyaṇī Saṁhitā there are almost twice as many sentences **without** particles as with them, and *vaí* and *evá* are almost equally represented (about fifteen apiece). So we see first, as noted above, the comparative rarity of particles in direct speech, and we see also that *vaí* does not show the ascendancy it has in expository prose.

But the most striking thing emerges when we examine their functions. In general, *vaí* and *evá* are next to impossible to differentiate. Delbrück (1888:479-91) devotes thirteen pages to the two particles, towards the end of which we sense an uncharacteristic touch of exasperation on his part. He cannot formulate a simple statement of their distribution. Indeed, one can get a feeling for some contexts that will have *vaí*'s, some with *evá*'s, but an overall characterization defeats one. Yet when we look at the subset of data consisting of direct speech, their distribution falls out so quickly and clearly that even the most dull-witted must see it.

But before examining this distribution it is necessary to digress, in order to establish that seeking a distribution between them is a legitimate pursuit. It is often stated that, whereas *vaí* is a sentential particle, *evá* emphasizes only the preceding word and as such can occur in any part of the sentence, not merely in second position where *vaí* does.[8] This statement of position is strictly true, in that *evá* is occasionally found outside of second position; however, the **overwhelming** majority of occurences of *evá* in all types of Vedic Prose discourse occupy the same second position as *vaí*,[9] and follow the same types of words as *vaí* (all types of pronouns, nouns, verbs, the negative, etc.). There is nothing intrinsic in the contexts that would suggest that *evá* is emphasizing only the preceding word, while *vaí* is to be applied to the whole sentence. Cf. sequences like the following.

(34) **yá evá mắṁ maddevatyà ādádhātai...** (MS 1.7.2)
'Who, having me as deity, will establish me...'

(35) **yó vắ asyắ ágre vikhanişyáti...** (MS 3.1.8)
'Who at first will dig out (of) this (earth)...'

In Maitrāyaṇī-Saṁhitā and Taittirīya-Saṁhitā direct speech I have found only five possible examples of *evá* outside of second position[10] (all in the Maitrāyaṇī Saṁhitā), and none of these is without taint. In the same corpus there are more than sixty examples of *evá* in second position. In two passages (MS 2.2.7, 2.4.3) *evá* occurs in a sequence *yáthā X evá*, i.e. after the first 'real' word in a *yáthā* clause. Cf. the following example.

(36) saṁdhắṁ nú sáṁdadhāvahai **yáthā** tvắm **evá** praviśắni (MS 2.4.3)
'Let us two conclude an agreement, that I will enter you.'[11]

The Taittirīya Saṁhitā parallel lacks the *yáthā*, and the *evá* is thus correctly placed:

(37) saṁdhắṁ tú sáṁdadhāvahai tvắm evá prá viśāni
(TS 2.4.12.6)

In the other three passages, better sense results from inserting a sentence break before the word preceding *evá*.[12] In other words, there are no good examples of non-sentential *evá* in direct speech.

To return to the distribution of *vaí* and *evá*: Simply stated, *vaí* occurs with indicatives, *evá* with modals. *Vaí* is found especially often with the present indicative (sometimes in nominal sentences with copula omitted) and the future, but also occasionally with aorist and imperfect (and in the Śatapatha Brāhmaṇa with the perfect). *Evá* is especially common with the subjunctive, particularly in the choosing of boons, but is also found with the imperative and optative (and in the Śatapatha Brāhmaṇa with prohibitive *mắ* + injunctive). *Vắvá*, a far less common doublet of *vaí*, is found with present, future, aorist, and once with the periphrastic perfect (MS 1.6.13). This distribution holds for all of Maitrāyaṇī Saṁhitā and Taittirīya Saṁhitā (mythological) direct speech, as well as for the Kāṭhaka Saṁhitā material I have investigated — hence seems characteristic for early Vedic Prose. From my limited corpus, there does seem to be evidence for it also in the Śatapatha Brāhmaṇa.[13] However, this distribution is definitely not reflected in the corresponding materials in the Aitareya Brāhmaṇa or Jaiminīya Brāhmaṇa. Perhaps this is a characteristic only of Yajur Veda schools? Cf. the following presentation of data. (The numbers of occurrences given in this presentation refer only to the Maitrāyaṇī Saṁhitā.)

vaí/vắvá

(a) **Present indicative:**

vaí (approx. 12x):

(38) antár vaí mā yajñắd yanti (MS 4.6.4)
'They exclude me from the worship.'

vắvá (2x):

Cf. MS 4.8.1 (= (29) above)

(b) **Nominal sentence, no copula:**
vaí (approx. 6x):
(39) jitámanaso vắ imé (MS 1.10.16)
'They have controlled minds.'
vắvá (2x):
(40) índro vắvá (MS 4.8.1)
'(This is) Indra.'
(c) **Future:**
vaí (approx. 12x):
(41) anéna vaí no 'nyé lokắm anvắrokṣyanti (MS 3.9.4)
'With this others will ascend to the (heavenly) world following us.'
vắvá (4x):
(42) mắṁ vắvắyắṁ hiṁsiṣyati (MS 1.6.5)
'He will harm me.'
(d) **Aorist:**
vaí (approx. 5x):
(43) ắhutyā vaí tvám āváyor ájaniṣṭhāḥ (MS 1.6.13)
'You were born from the oblation of us two.'
vắvá (2x):
(44) sakṛ́d vắvắsurāḥ śriyó 'ntam águḥ (MS 1.6.13)
'Immediately the Asuras have gone to the limit of luck.'
(d) **Imperfect:**
vaí (2x):
(45) tráyo vaí me pū́rve bhrắtaraḥ prắdhanvan (MS 3.8.6)
'My three brothers ran forth previously.'
(f) **Perfect:**
vaí:
(46) ná vaí hatắṁ vṛtrắṁ vidma ná jīvắm (ŚB 4.1.3.2)
'We do not know (whether) Vṛtra is dead or alive.'
vắvá (1x):
(47) ahắṁ vắvắgnyādhéyaṁ vidắṁ cakāra (MS 1.6.13)
'I knew the Agnyādheya.'

evá

(a) **Subjunctive** (approx. 15x)
(i) In boons:
(48) (jahy èvá ... bhāgó me 'stu ... vṛṇīṣvá)
('Smash (him)! ... Let me have a share ... Choose!')
páyasaivá me sómaṁ **śrīṇān**
'[That] they will/should mix my soma with milk.' (MS 4.5.8)
(ii) Elsewhere:
(49) yád **evá** tvắṁ kíṁ ca karávaḥ...(MS 1.6.10)
'Whatever you will/might do..."
(b) **Imperative** (approx. 7x):
(50) ástv evá ma idám (MS 1.6.12; see also (48) above.)
'Let this of mine exist.'

c) **Optative** (2x):

(51) tvắm evéndhīya (MS 2.4.3 [= TS 2.4.12.6])
'I would kindle thee.'

(d) **Prohibitive *mắ* + injunctive:**

(52) maívá sárveṇevātmánā devắnāṁ hávir bhūvam (ŚB 3.9.4.12 (=22))
'Let me not become the gods' oblation with my whole self, as it were.'

I have given only a very limited set of examples. These could be easily multiplied, since the above rule on the distribution of *vaí* and *evá* in the direct speech of early Vedic Prose seems well-nigh ironclad. Of nearly 200 instances of these particles in the Maitrāyaṇī Saṁhitā, Taittirīya Saṁhitā, and Kāṭhaka Saṁhitā material that I have investigated, I have found only ten to fifteen potential counterexamples.[14] Most of these are instances of *evá* with indicatives.

The most understandable development is that of *evá* + future. Cf. e.g. (53): As the future expands to acquire the function of the old and soon to be moribund subjunctive, it is reasonable that the particle usage of the subjunctive might in part be transferred to the future, though it is formally non-modal.

(53) ahám evá tveáḥ pāsyāmi ... pṛthivyắḥ[15] (MS 4.3.4)
'I will protect thee from here, from the earth.'

Another passage containing a formal indicative + *evá* (cf. example (54) below) also has a modal 'feel': Despite the present indicative *svas*, the construction *īśvará-* + infinitive 'be likely/liable to' has non-indicative semantics.

(54) gór evắvām īśvaraú kártoḥ svaḥ (TS 2.6.7.1)
'We two are likely/liable to create a cow.'

Nonetheless, after discounting all the passages with quasi-modal value and those with disturbed text (see note 14), there do remain a few undoubted counterexamples. *Evá* occurs in one Maitrāyaṇī Saṁhitā passage (1.6.13) with the aorist, as well as possibly several times (1.8.7, 3.8.1) in a nominal sentence without copula. The Taittirīya Saṁhitā contains a passage with present indicative (2.5.11.5). Compare the (continued) data presentation below.

evá

(e) **Present indicative:**

(55) dūtắr evá tvắṁ mánaso 'si (TS 2.5.11.5)
'Thou art the messenger of mind.'

(f) **Aorist indicative:**

(56) amúm evắgrā ắdhiṣatắthemắm áthemắm (MS 1.6.13)
'At first they placed that, then this, then this.'
(Repeated twice, with different order of pronouns.)

In the two nominal sentences, the *evá* is used to identify a particular god, in answer to a direct question, and may actually be a representative (or remnant) of the nominal emphasizing *evá*.

(g) **Nominal sentences:**

(57) (átha yáḥ sakṛd [sic] ájuhot tám apṛchan) kásmai tvám ahauṣīr íti (sò 'bravīd) ekadhā́ vā́ idáṁ prajā́pataya evéti (MS 1.8.7)
'(Then they asked the one who poured (the oblation) all at once:) "To whom do you pour [=offer]?" (He said:) "This (oblation) is single. (It is) to Prajāpati alone/indeed."'

(58) (tè 'bruvan) ká imā́m íṣum ávasrakṣyatīti (té devā́ abruvann) ayám [mss. áyām] evá rudrá íti (MS 3.8.1)
'(They said:) "Who will release this arrow?" (The gods said:) "This Rudra indeed."'

On the other hand, *vaí*/*vā́vá* occurs with the optative in parallel, though slightly different passages from the Taittirīya Saṁhitā and Maitrāyaṇī Saṁhitā, in which Indra offers a bull of Videha to release himself from the coils of the slain Vṛtra; cf. the following presentation.

vaí*/*vā́vá

(g) **Optative:**

(59) (tám índraḥ | acāyat sò 'manyata) yó vā́ imā́m ā́lābheta múcyetāsmā́t pāpmánaḥ (TS 2.1.4.5-6)
'(Indra noted him [= the bull]. He thought) "Who would bind this one (for sacrifice), he would be released from this sin."'

(60) (tám acāyad) ayáṁ vā́vá māsmā́d áṁhaso muñcet (MS 2.5.3)
'(He noted him [thinking]) "This one would release me from this difficulty."'

These expressions, especially the one in the Taittirīya Saṁhitā, seem deliberately modeled on the discourse style of ritual debate and therefore may not follow the usual rules of direct speech.

Indeed, the picture of *vaí* and *evá* in the text at large (i.e. in non-direct speech) is quite different: *Vaí* usually does not violate the rules stated above: It still occurs (almost) exclusively with indicatives. (I have yet to find a counter-example, though I assume some exist.) The problem is that *evá* is found in the same environments as *vaí*. In a sampling of 25 or so instances of *evá*, I found only one with a modal (an optative); the rest were principally with present indicatives, as well as a few with imperfects and aorists.

Given this distribution in non-direct speech, it is little short of remarkable that direct speech observes the modal/non-modal distinction so carefully — since it occurs only in these small nuggets of direct quotation embedded in a discourse of very different type. The rarity of counterexamples I can only consider amazing.

Unfortunately I do not have a complete explanation for this distribution. It cannot be considered a simple and direct preservation of an older situation, e.g. the situation in the Rig-Veda. Yet certain aspects of the Rig-Vedic usage of *evá* do seem to be found in our direct speech distribution and not in the rest of Vedic Prose. As is well known, *evá* has two seemingly different functions in the Rig-

Veda, depending on its position in the clause. When initial, it means 'thus' or 'so' and is often the correlative of *yáthā* 'even as'. In this position and function, Vedic Prose has replaced it with *evám*. Otherwise it appears as an emphatic particle, following the word it is emphasizing. Such is the conventional wisdom on the subject; cf. e.g. Macdonell 1916:223-4, Speijer 1896:70, and, with more delicate analysis, Grassmann 1872:sub *evá*.

One should note two further features about Rig-Vedic *evá* that are relevant for our discussion. First, just as in prose (see above), 'emphasizing' *evá* occurs much more frequently in second position in the pāda or clause than anywhere else.[16] Second, and more important, one of the common stylistic uses of **initial** *evá* is in the meaning '*so ... denn* mit dem Imperativ oder einem Conjunctiv oder Optativ in imperativischem Sinne' ('*so ... then* with the imperative or with a subjunctive or optative in imperatival function'); cf. Grassmann, 1872:sub *evá*, function no. 4. As Grassmann points out, this is especially common in the last verse of a hymn. Cf. e.g. example (61).

(61) **evā́** na indra vā́ryasya pūrdhi (RV 7.24.6)
'So, Indra, give us (of) desirable (goods).'

Grassmann lists 21 such passages under his function 4. To these can be added some fifteen to twenty more, found among his functions 5 ('bekräftigend' = 'emphasizing') and 8 ('in Verbindungen mit andern Partikeln' = 'in connection with other particles', as in RV 8.9.3, 9, 10). This was clearly a common stylistic trick.

The distribution of *evá* in direct speech in early Vedic Prose seems to combine the function of this initial *evá* with the position of the emphatic *evá*. How this came about, which of the situations is older, whether one is the direct development of the other or both have developed from another situation — about these questions I am not certain. Nor do I completely understand how the far different situation in general prose style arose, though I have some ideas. What I suspect happened is that *vaí* and *evá*, deprived of the annunciatory force they have in speech, were pressed into service as discourse markers, like so much else in Vedic Prose. As Delbrück already noted (1888:486ff.), *vaí* typically occurs in the first sentence of a subsection of text, while *evá* will occur in non-initial sentences, often in the final, summary sentence. Cf. the abbreviated example below:

(62) paśávo **vaí** chándāṁsi paśū́n **evā́**varunddhe (MS 1.6.4)
'The meters are [really] paśus. [Thus] he gains paśus.'

Since discourses often begin with statements of fact and progress to prescriptions or possibilities, *vaí* and *evá*, with their older values, might often have held these respective positions, and their reanalysis as discourse markers may have begun there.

In this brief paper I cannot hope to have covered all aspects of the syntax of direct speech. What I hope to have done is to show the value for the study of the Vedic language as a whole, of isolating smaller corpora of stylistically unified discourse and examining their properties.

Notes

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[1]Cf. the far more delicate chronology elaborated by Witzel (1987 and To Appear).

[2]On this question, cf. Hock, 1982a:8.

[3]Cf. Hock 1982a:7-8.

[4]Cf. Hock 1982c:44, 52.

[5]Cf. Hock 1982c:14 for preposed relative clauses with *sá/tád*. (The three postposed relatives with *sá/tád* he mentions in Taittirīya Saṁhitā 5-7 are presumably those which I give in the text.) I assume from his note 13 that he has seen no special placement of relative clauses with *ayám*.

[6]The Kāṭhaka Saṁhitā parallel also has a postposed relative clause, but its order is otherwise orthodox:

sa eva me prajānām ṛdhnavad yo metas saṁcinavat (KS 22.7)

'He will thrive with respect to (?) my offspring who will pile me up from here'.

I am forced to assume that the placement of *sa* in initial position here is secondary, in other words that the Kāṭhaka Saṁhitā first postposed the relative because of the non-initial position of the *sa/tad* pronoun (as in the Taittirīya-Saṁhitā version) and only subsequently restored this pronoun to initial position.

[7]Comparison of Maitrāyaṇī Saṁhitā and Kāṭhaka Saṁhitā parallels illuminates some details of the other Taittirīya-Saṁhitā passages:

TS 6.2.2.1-2 is actually of dubious evidential value, since it clearly results from a rationalization, a radical tidying up of a corrupt and incomprehensible sequence of words. The Maitrāyaṇī Saṁhitā and Kāṭhaka Saṁhitā/Kapiṣṭhala Saṁhitā have different sequences:

(a) yó nas tán nápād yó no 'nyònyásmai drúhyād itá evá sáṁ nír ṛchāt (MS 3.7.10)

(b) eṣā(ṁ) nas tanna [KapS tanvaḥ] pārayād yo no 'nyo'nyasmai druhyāt (KS 24.9/KapS 38.2)

(See the corrections to the Maitrāyaṇī Saṁhitā in the back of von Schroeder's Maitrāyaṇī Saṁhitā 4 and his text of the Kāṭhaka Saṁhitā for suggested emendations by Roth and Caland respectively. Neither seems to me particularly successful.)

Note especially the *sáṁ nírṛchāt* of the Maitrāyaṇī Saṁhitā where the Taittirīya Saṁhitā has the pronoun *sá nírṛchād*. The original sequence may not have had a demonstrative here at all. I do not venture to judge which is the older version or what original formulation it replaced, but the Taittirīya-Saṁhitā passage cannot really be used as evidence here.

The final Taittirīya-Saṁhitā example is curiously composed, though there is no problem with the text. Besides the non-initial position of *tám*, there is the unusual (one might say awkward) repetition of *kámam*. The Kāṭhaka Saṁhitā has an exact parallel, save for the case:

(c) ava taṁ kāmam arutsmahi [corrected from Ch. arutmahi or arutsahi] yasmai kāmāya nyasadāma (KS 33.1)

However, comparison of several Maitrāyaṇī-Saṁhitā passages is more revealing than the Kāṭhaka-Saṁhitā version, though the Maitrāyaṇī-Saṁhitā passages are not extracted from a parallel to the Taittirīya-Saṁhitā/Kāṭhaka-Saṁhitā story told here — the cows' sitting a sattra to obtain horns. (The Maitrāyaṇī Saṁhitā has no equivalent to this.) The Maitrāyaṇī-Saṁhitā

passages suggest that the Taittirīya-Saṁhitā relative phrase *yéna kā́mena* (KS *yasmai kāmāya*) is actually a substitution for a single lexical item: *yátkāma-* 'having what desire':

(d) **yátkāma etā́m** ā́labdhāḥ **sá te kā́maḥ** sám ṛdhyatām (MS 4.8.1)
'**With whatever desire** you bound her (for sacrifice), let **that desire** be accomplished for you.'

(e) **sá yátkāmo** mā́ṁ vyāghārāyā́t **tám evá sá kā́mam** aśnuvat (MS 3.8.5)
[For translation see below]

In both these passages *kāma-* appears twice, once as the noun *kā́ma-* itself, expressing the desired purpose of the ritual act, once as part of a bahuvrīhi referring to the yajamāna. In the Taittirīya-Saṁhitā/Kāṭhaka-Saṁhitā passage this doubling is preserved, though the functional distinction is not. The semantic complexity of *yátkāma-* gives rise to syntactic disturbances in the two Maitrāyaṇī-Saṁhitā passages. In 4.8.1, note that the resumptive pronoun in the main clause does not correspond to its actual, formal antecedent. The relative *yátkāma-* refers to Manu, the sacrificer, who is expressed by *te* in the main clause; the *sá* resumes the *-kāma-* buried in the compound.

3.8.5 is even more complex. It is almost impossible to render both literally and comprehensibly in English. This seems also to be the case in Sanskrit, where the tangle of pronouns and relatives in this sentence is unprecedented in direct speech. The problem is that there are two variables in each clause: Both the subject of the verb and his desire are, logically, indefinite relatives. In English this should yield something like 'Whoever$_x$, having whatever desire$_y$, will sprinkle me, that one$_x$ will obtain that desire$_y$.' Vedic does not allow two formal relatives in one clause (as far as I know, though it does allow two formal interrogatives), so that a possible underlying sequence **yó yátkāmaḥ* was converted to *sá yátkāmaḥ*. Each of these relatives is answered in the main clause by a form of *sá/tád*. Since these cannot both be initial in the clause, we find here another of the rare examples of non-initial anaphoric *sá*.

[8]E.g. Speijer 1896:69-70, Macdonell 1916:224, 248 (esp. *c*).

[9]These two positions, of course, could be compatible, since single words to be emphasized are often fronted. However, the similarity between the words preceding the two particles makes it harder to distinguish their syntactic uses on this basis. For further discussion on this, see below.

The ascendancy of sentential uses of *evá* in Vedic Prose is a topic that J.P. Brereton intends to treat at greater length in the future.

[10]I consider the two sequences (TS 6.4.7.3, 6.4.8.2-3) of the structure *X ca evá ... Y ca* as having *evá* in second position. Cf. example (a).

(a) **máhyaṁ caivaiṣá vāyáve ca** sahá gṛhyātai (TS 6.4.7.3)
'It [the cup] will be drawn for me and for Vāyu together.'

Note that *vaí* can also be displaced to the right by other Wackernagel's Law particles, as in (b).

(b) **anāyatanā hi vai** smas tasmāt parājayāmahai (KS 29.1)
'Because we are without support, therefore we will be defeated.'

For the relative positions of unaccented and accented particles in Vedic Prose in general, cf. Hock 1982a:11.

[11]In MS 2.2.7 the *yáthā* is superfluous and seems the result of conflation of two constructions, one direct and one indirect speech. Cf. Delbrück 1888:533, Hock 1982c:58.

[12]In MS 1.9.5, the gods seeking to reach the sun request a gift from the ṛṣis (as the Kāṭhaka-Saṁhitā parallel makes clear):

(a) áto no yūyáṁ práyachata **kénāyátanenā́traivá** vetsyathéty abruvan (MS 1.9.5)

Although the sequence *kéna . . vetsyatha* has been interpreted as a single sentence (e.g. Rolland 1970:271: 'Grâce à quel autel le trouverez-vous?' ['Thanks to what altar will you find it?']), the parallel passage in the Kāṭhaka Saṁhitā, with *iti* interpolated, makes it clear that there is a break before *átra* and that the passage is a dialogue:

(b) ... **kénāyátanenéty átraivá** vetsyatheti (KS 9.12)

Hence the translation of example (a) above:

"Hold forth (a gift) to us from here." "With what support?" "You will find (it) there."'

In MS 4.1.10 (= (c) below), inserting a sentence break not only solves the problem of *evá* apparently occurring in the same clause as *vaí*, but eliminates a potential example of third pl. *té* as subject of a second person imperative — as well as improving the sense. The gods and Asuras are conversing:

(c) té devā́ abruvan dattá no 'syā́ḥ pṛthivyā́ íti té vaí svayám evá brūdhvam íti
(MS 4.1.10)

If we supply **abruvan* after *vaí*, this clause will simply identify a change of speaker and will not form part of the quotation. We can translate: 'the gods said "give us (some) of this earth", and they [= the Asuras] (said) "Speak (for) yourselves."'

The final passage is unclear and occurs in the difficult Mārtāṇḍa section of the Maitrāyaṇī Saṁhitā. Though I do not entirely understand the passage, inserting a sentence break at least does not make the passage less clear. The other Ādityas say about their aborted brother Mārtāṇḍa, in answer to their mother Aditi's request that he be allowed to exist (*ástv evá ma idám*; cf. example (50)):

(d) áthaiṣò 'smā́kam evá bravātai ná nó 'timanyātai (MS 1.6.12)
(Tentative translation:) 'Then (let) him (be). He shall speak of himself (as one) of us. He will not disdain us.'

However, Delbrück (1888:313) takes *átha ... bravātai* as a single sentence: 'so möge jener sich für einen von uns erklären' ('thus he should declare himself (to be) one of us').

[13]Cf. e.g. the following example.

sárvaṁ vaí ma idáṁ tasthānáṁ yád idáṁ kíṁ ca tíṣṭhadhvam evá me (ŚB 3.9.4.15)
'All this (is) standing still for me — whatever there is. Do ye stand still for me.'

[14]Some of these are textually questionable. For example, MS 3.4.1, as printed by von Schroeder, contains an apparent example of *vaí* with the subjunctive:

(a) a3rdhyo vā́ ahám devátānām asāni (MS 3.4.1)
'I shall form half of the divinities.'

This would be especially disturbing, since it is found in the formulation of a boon, after the stereotypical dialogue *bhāgó me 'stu* 'Let me have a boon' : *vṛṇīṣvá* 'choose!' (cf. e.g. example (48)), a speech situation in which *evá* is very firmly entrenched. But in fact, the text just given is an emendation of von Schroeder's; the manuscript readings are H and Bb: *a3rddho vā́ham* and (even better) B: *a3rddhe vāham*. It seems clear, especially from the last reading, that the text originally contained the expected *evá*, though I do not venture to restore the rest.

In MS 4.6.4 von Schroeder prints the text in (b):

(b) (vā́g abravīn) naívá máyā kíṁ canā́nabhyuditaṁ kriyatā́ íty (átha máno 'bravīn)
naívá máyā́ kíṁ canānabhigataṁ kriyatā́ íti (MS 4.6.4)
'(Speech said:) "Nothing is done unexpressed/unaddressed by me." (Then Mind said:) "Nothing is done unapproached by me."'

This then should be an example of *evá* + present indicative. (The final long *ā* of *kriyatā* simply results from the well-known Maitrāyaṇī-Saṁhitā sandhi rule that unaccented final *a* issuing from *-as* or *-e* is lengthened before a following accented vowel; cf. von Schroeder, Maitrāyaṇī-Saṁhitā 1, introduction:xxviii-ix.) However, one of the manuscripts (of the five at von Schroeder's disposal for this section), Bb, reads instead in both instances *kriyātā íty*, that is, a subjunctive. Since this section concerns a rivalry between Speech and Mind, in which Speech threatens non-participation in the ritual if she loses, the subjunctive is a possible, though not necessary reading: 'Nothing will be done unexpressed/unaddressed by me'.

Even if indicative *kriyate* is the correct reading, one should note that *evá* is found elsewhere with the phrase *(yád) (...) kíṁ ca* and a correctly modal verb, such as subj. *karávaḥ* (MS 1.6.10 = example (49)), opt. *skándet* (MS 3.8.6). The *ná ... kíṁ ca* here may have helped trigger the

use of *evá* in this passage. Moreover, as Brent Vine has pointed out to me, negatives often evoke modal or quasi-modal behavior.

Two other apparent counterexamples (*evá* + aorist and *evá* + future) occur together in the same section of the Maitrāyaṇī Saṁhitā and begin with the same sequence of words:

(c) **adá evā́sā́ ábhūt** (MS 1.6.10 (p.102:6))

(d) **adá evā́sā́ agním ... bhaviṣyáti** (MS 1.6.10 (p.102:15))

In neither case does the opening sequence, with neuter pronoun *adás* (?), make sense. Note also the unmotivated accent on the verbs. And though I have as yet no better interpretation, I doubt if these passages contain *evá*.

I would also tentatively include here, as a passage with textual problems, MS 4.2.13, containing an example of *vaí* + optative. The passage occurs in an obscure narrative and expresses the thought of Mitra and Varuṇa concerning an as yet unborn (or stillborn?) sibling of the gods:

(e) **syād vaí yá enad vikuryā́t** (MS 4.2.13)

Lit.: '(He) would be, who would transform/spoil this' (?!)

Without a clearer idea of the intention of the passage, it is hard to accept the unexpected *vaí* + optative as transmitted.

[15]Cf. also 1.9.5 discussed above (note 12, example (a)) and the probable non-example 1.6.10 in note 14 (example (c/d)), as well as several examples in the Śatapatha Brāhmaṇa (3.9.3.20, 4.1.3.3, 4.1.3.16).

[16]Of course, as noted above, this Wackernagel's-Law position does not necessarily mean that Rig-Vedic *evá* is a sentential particle, not one bound only to the preceding word. It could well be that the word it is emphasizing was also fronted, thereby acquiring two marks of emphasis: position and a following particle. Such fronting, if habitual, would give rise to the possibility of reinterpreting *evá* as a sentential particle. This is, to my mind, its major function in Vedic Prose.

A diachronic phonological solution to the syntax of Vedic negative particles*

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1. It is well known that Vedic Sanskrit, as well as later stages of Sanskrit, has two negative particles, *mā* and *na*.[1] These two particles differ in their syntax, in particular with regard to the types of verbal forms they typically occur with. Both can occur in principle with all person/number combinations,[2] but they are restricted in terms of the verbal moods they combine with. The particle *mā* regularly occurs only with the injunctive mood,[3] as a special syntagm for the expression of prohibitive statements, while *na* occurs with the other moods as a simple negator, i.e., with no particular value beyond the negation of the form it occurs with.

This distribution of the negative particles is implicit in the prescription of Pāṇini 3.3.175-176 (though admittedly for Classical Sanskrit usage) and is restated in most grammars of Sanskrit, for example in Whitney 1889:§1122c, Macdonell 1910:§648. Some examples that illustrate the use of these particles in the Rig Veda are given in (1) and (2):

(1) (a) mắ rāyó rājant suyámād áva sthām (2.27.17)
'Let me not forfeit, O king, well-regulated riches.'

(b) mắ no vadhīr indra (1.104.8)
'Do not slay us, O Indra!'

(c) mắ hṛṇīthā abhy àsmắn (8.2.19)
'Do not be angry at us!'

(d) mắ vo ... jaritắ bhūd ájoṣyaḥ (1.38.5)
'Let your singer not be(come) unwelcome.'

(2) (a) yásmād ṛté ná sídhyati yájño (1.18.7)
'Without whom the sacrifice does not succeed.'

(b) pūṣan táva vraté vayám ná riṣyema kadắ caná (6.54.9)
'Would that we not suffer harm at any time in your service, O Pūṣan!'

(c) ná tắ naśanti ná dabhāti táskaro (6.28.3)
'They (the cows) do not perish, the robber will not deceive them.'

From the evidence exemplified in (1) and (2), it can be said that the two negation particles are in syntactic and functional complementary distribution, i.e., in terms of the verbal moods they select for and the function of the collocation of

negative particle + verbal form: *mā* occurs in negative commands with the so-called injunctive mood (cf. (2)); *na* is found elsewhere.

This, however, is not the whole picture, for there are some exceptions in Vedic to the scheme exemplified in (1) and (2).[4]

In particular, *na* can occur with the injunctive if this mood has the value of a timeless truth, e.g. a statement about the gods or the mythic past, or if it has the sense of what Delbrück (1893:358) referred to as 'zuversichtliche Erwartung' ('confident expectation'). An example of such a timeless injunctive negated with *na* is given in (3):

(3) bhadrā́ te agne svanīka saṁdṛ́g ghorásya sató víṣuṇasya cárūḥ **ná**
yát te śocís támasā **váranta ná** dhvasmā́nas tanvì répa ā́ **dhuḥ**
(4.6.6)
'O fair-faced Agni, your visage is pleasant, beloved (even) of (you when you are) awesome and manifold; since they do not cover your flame with darkness, the (powers of) darkness do not put (any) blemish on your body.'

Examples such as (3) might be viewed as disturbing the syntactic complementary distribution of the negative particles, but they do not affect their **functional** complementary distribution. The reason is that the collocation of *na* plus the injunctive here does not infringe upon the clear prohibitive sense of the injunctive when associated with *mā*.

2. On the other hand, in a few instances — admittedly not systematic ones — *mā* occurs with verbal moods other than the injunctive and nonetheless seems to have a prohibitive value.[5] The one monographic survey of the injunctive in Vedic, however, Hoffmann 1967, views these few instances as having no probative value for the syntactic analysis of the negation particles in Vedic. For Hoffmann, *mā* alone is the carrier of prohibitive meaning in the collocation, since the injunctive is used in constructions other than the prohibitive and in those uses is negated with *na*, as seen in (3). Thus, Hoffmann looks for other explanations for nonsystematic occurrences of *mā* with moods other than the injunctive.

2.1. For example, he explains the single instance of *mā* with the imperative, *mā́ no hṛṇītām átithir* 'Let the guest not be angry at us' (RV 8.103.12), as a false normalization of an affective pluta form,[6] i.e.**hṛṇītā3m*, for an expected imperfect injunctive **hṛṇīta*.[7] (94-5) Grassmann (1872:1026), moreover, labels the passage 'wahrscheinlich verderbt' ('probably corrupt'; similarly Whitney 1889: §579c), and noting that for the same passage, the Sāmaveda has the middle imperfect injunctive second singular form *hṛṇīthās*, suggests that both *hṛṇītām* and *hṛṇīthās* may be the result of a remaking so as to avoid a hiatus in the original (**... hṛṇītā átithis ...*).[8]

2.2. Similarly problematic, though still explainable, are five occurrences of *mā* with the optative. All, however, involve the same collocation, *mā́ bhujéma* 'may we not atone (for)'. These have been dismissed by Hoffmann as the result of a conflation of the common collocations *bhujé me* 'for my atonement' and *bhujé nas* 'for our atonement', consisting of the dative of the root noun of √*bhuj-*

with a clitic form of a genitive personal pronoun, plus an implied copular injunctive, and meaning 'let it not be for our/my atonement'.[9] It is even possible that the copula, in the form **as(t)*, the archaic third singular of an augmentless imperfect of √*as*-,[10] was originally (or synchronically underlyingly) present[11] in *mā́ bhujéma* resulting in the structure **mā́ as(t) bhujéma*, but came to be absent (superficially) through the workings of the regular sandhi processes that contract like vowels and delete word-final consonants.[12]

2.3. Finally, there are several occurrences of what appears to be *mā* with a subjunctive, such as *mā́ ... karat* 'may he not do' (RV 5.56.7, 8.2.20). These, however, may instead be real cases of *mā* with an injunctive, for virtually all[13] the subjunctives in this syntagm — including *karat* — are ones that happen to be formally ambiguous in their classification. Thus, *karat* can be classified either as a root-aorist subjunctive or as an *a*-aorist injunctive, since root-aorists of √*kṛ*- are quite common in the Rig-Veda, and *a*-aorists, morphological replacements of the root-aorist, are attested in later Vedic, e.g. the Atharva Veda, the Brāhmaṇas, and the Sūtras.

2.4. Thus, in Hoffmann's view, the exceptions that involve *mā* and run counter to the functional complementary distribution implicit in (1) and (2) can all be explained away, in such a way as to preserve the special value for *mā* and also its special association with the injunctive in forming a prohibitive. The importance of this for Hoffmann's overall analysis of the injunctive cannot be underestimated: In trying to argue that the injunctive is a real morphological category in Sanskrit, Hoffmann is at pains to demonstrate that in Vedic its uses went beyond those found in Classical Sanskrit, where it is limited to prohibitives. And in order to do this, he must show not only that the injunctive has several well-defined functions besides its occurrence in prohibitives but also that in the prohibitive, it is *mā*, not the injunctive itself, that is the carrier of prohibitive value. (See also note 5.)

3. It is therefore quite problematic for Hoffmann that there are some instances of the other logically possible counterexample to the generalization implicit in (1) and (2), namely the occurrence of the negation particle *na* with the injunctive such that the collocation has a prohibitive sense. The occurrence of such collocations presents a problem not only for Hoffmann with his special interpretation of the injunctive, but also for the usual statements of the syntax of these negative particles, such as the ones noted above. These examples therefore command attention and we need to consider how the problems they raise might be accommodated.

3.1. One possible example of this type is given in (4), from RV 3.41.6, repeated at RV 6.45.27, so that the two occurrences in question represent but a single distinct case:

(4) sá mandasvā hi ándhaso | rā́dhase tanvā́ mahé | **ná** stotā́raṁ nidé **karaḥ**
'Take delight in Soma, yourself, for great giving; do not abandon the worshipper to disgrace.'

It must be admitted that the prohibitive reading is not absolutely required by the sense of the verse, even though the appearance of a true imperative in pāda (a) suggests that a command may be intended in pāda (c). For from a formal standpoint, (4) is not unequivocally a case of a prohibitive injunctive with *na*, since *karaḥ* is formally ambiguous, being classifiable as either an *a*-aorist injunctive or a root-aorist subjunctive (cf. the discussion in section 2.3 concerning the *karat* of 5.56.7 and 8.2.20). If *karaḥ* is a subjunctive, then negation with *na* would be expected and a translation as '... you should/will/do not abandon ...' would be more appropriate.

3.2. The second example, given in (5), is a more certain case of a prohibitive injunctive with *na*:

(5) tvā́vato híndra krátve ásmi tvā́vato 'vituḥ śūra rātaú | viśvéd áhāni
taviṣīva ugraṁ ókaḥ kṛṇuṣva harivo **ná mardhīḥ** (7.25.4)
'O Indra, I am in the power of one like you, O hero, in the grace of a helper like you; O powerful, mighty one, make your dwelling with us all (our) days; O god of fallow mares, do not neglect us.'

From a formal standpoint, *mardhīḥ* must be taken as an injunctive, specifically a second singular *iṣ*-aorist injunctive of √*mṛdh*-, and admits of no other interpretation.

Moreover, there seem to be good reasons for taking the combination *ná mardhīḥ* as prohibitive in value. For one thing, the combination of a command with an immediately preceding vocative — *harivo* — is quite natural, and there is a clear imperative (*kṛṇuṣva*) in the preceding pāda expressing a command. Furthermore, the whole phrase is very short, as commands often are. And although Hoffmann dismisses this example as a mere verse-filler (probably a compromise between *mā́ mardhīḥ* and *ná mardhiṣas*), pointing to the fact that the verb √*mṛdh*- ordinarily occurs with an object noun phrase, he overlooks the fact that neither 'correct' collocation (i.e. *na* plus noninjunctive mood or *mā* plus injunctive) fills out the metre adequately[14] and that √*mṛdh*- does occur without an object elsewhere in Vedic in the meaning 'be neglectful'.[15] Finally, it is significant that the same form of √*mṛdh*- found here, namely *mardhīḥ*, occurs in a clear prohibitive with *mā* at 4.20.10a:

(6) **mā́** no **mardhīr** ā́ bharā́ daddhí tán naḥ
'Do not neglect us; bring that, give (it) to us.'

Given all these considerations, it seems safe to work with the assumption that at least the example in (5) offers a real instance of *na* plus injunctive with prohibitive meaning (and that perhaps the example in (4) does too), and to investigate what possibilities for an explanation exist.

4. As it happens, a consideration of the metre of the verse in question leads to an interesting possibility for explaining diachronically the emergence of the prohibitive *na* plus injunctive in (5), an explanation which may be extendable to the other examples as well.

4.1. The explanation starts from the observation that the difference between *na* and *mā* potentially matters for the metre of a verse, in that one is inherently

light and the other inherently heavy. Moreover, in the best example of a prohibitive *na* plus injunctive, i.e. the irregular occurrence in example (5), the metre of the verse is triṣṭubh, consisting of 11 syllables per pāda. As such, it has certain positions in which a long or a short syllable is favored — though not necessarily required. A position favoring the occurrence of a short syllable in such a trimeter verse is the ninth position (Arnold 1905: §47), and interestingly, it is the ninth position that *na* occupies in its irregular occurrence with the injunctive in (5). The scansion of this pāda is indicated in (7):

(7) – – ˘ – ˘ | ˘ ˘ | – ˘ – –

ókaḥ kṛṇuṣva harivo **ná** mardhīḥ

The occurrence of *ná mardhīḥ* with *na* in a metrical position favoring a short syllable is important when a comparison is made with the other instance of prohibitive *mardhīḥ*, cited in (6) above. There, *mā* occurs in pāda-initial position, which represents a metrically indifferent slot, i.e. one favoring neither a long nor a short syllable. For such a metrical position, the composer of the verse presumably was free to give the most neutral or unmarked syntagm for a given expression.

The metrical alternation, as it were, between short-position *ná mardhīḥ* and indifferent-position *mā́ mardhīḥ* then, takes on considerable significance, and suggests that the metre is at the heart of the apparent anomaly involved in (5). It must be noted, though, that the other possible instance of *na* with the injunctive in a prohibitive sense (cf. example (4) above) has *na* in pāda-initial position. This fact is dealt with below after a fuller consideration of example (5).

4.2. If the correlation in (5) of a metrical position favoring a short syllable with the occurrence of the inherently short negative particle *na* is taken seriously, especially in comparison with *mā* in example (6), then two hypotheses suggest themselves as explanations for the otherwise anomalous pattern of a prohibitive *na* with the injunctive.

First, it may simply be the case that this is a metrically induced substitution of a negative form with a short vowel, i.e. *na*, for one with a long vowel, namely *mā*. This explanation, however, is not very attractive, since *na* and *mā* in general were functionally distinct and thus presumably exactly not the sort of elements that might stand in a relationship of substitutability.

More interesting, and in no way excluded by the notion of a metrical substitution, is the second possibility, namely that it is not so much the substitution of one completely different form for another, but rather a metrically induced selection of a preexisting — but by Vedic times synchronically no longer available — short-vowel variant of the long-vowel form. This short-vowel form would presumably have been **ma*, and would have fit into the metrically short slot in (5) The attested form *na* found in (5) would, under this hypothesis, represent a normalization — or better, reanalysis — of the short-vowel variant of *mā* to the synchronically more usual short-vowel negative particle, *na*.

4.3. On independent grounds, of the two hypotheses, the latter is to be preferred, given the difficulties associated with the substitution of entirely different

forms in the former, as opposed to the mere selection among allomorphs of a single morpheme in the latter. Moreover, there is a considerable amount of empirical evidence, both internal and external to Sanskrit, that supports the second hypothesis, and especially the positing of a short-vowel alternant of *mā* that it requires.

First, a short-vowel variant of *mā* would explain the exceptional behavior in Classical Sanskrit of this long-vowel form in triggering the doubling of initial *ch* to *cch*, as prescribed by Pāṇini 6.1.174. In general, only short vowels trigger the change optionally. However, the long vowel in *mā* aligns itself with the short vowels and triggers the doubling of *ch* obligatorily.[16] If there had once been a short-vowel variant of *mā*, then this otherwise unexpected short-vowel-like behavior of *mā* would have an explanation, under the assumption that with the elimination of the short-vowel variant, the remaining form of *mā* took on the sandhi properties of its counterpart allomorph.

Second, a lengthened form of *na*, i.e. *nā*, occurs in RV 10.34.8c; cf. (8). This form is either a metrical lengthening — it is in a metrical slot, eighth in a trimeter (triṣṭubh), that regularly favors a long syllable — or else represents an inherited long-vowel alternant, cf. Latin *nē* or Gothic *nē*. The existence of *nā* beside *na* in Indic suggests a system of length alternation in the negative particles, dating at least to early Indic, though conceivably of Indo-Iranian or even Indo-European age. And this system of length alternation would lead one to expect a short vowel counterpart to *mā*. At the very least, moreover, the presence of such an alternation in Indic (or earlier) — and other similar alternations in other particles, most notably *nu*/*nū* 'now' — would have presented the possibility for the creation at any time of **ma* via a proportional analogy such as the one in (9).

(8) ugrásya cin manyáva **nā́** namante
'They do not bow even to the rage of the mighty.'

(9) nā́ : ná = mā́ : X
X → *má

Third, there is comparative evidence that provides another possible source of a short-vowel form beyond the internal sources just noted. Sanskrit *mā́* derives from Proto-Indo-European **mē* (cf. Armenian *mi*, Albanian *mo(-s)*,[17] Greek *mḗ*); and the long vowel in this proto-form can be 'rewritten'[18] in laryngealistic terms as *-eE* (where *E* is the neutral or *e*-coloring laryngeal), giving a proto-form **meE*. Under this laryngealistic interpretation, a short-vowel variant of **mē* or **meE* could be expected to occur as a result of a well-known Proto-Indo-European process by which a final laryngeal was lost before a vowel-initial word. The expected alternation between preconsonantal **meE* and prevocalic **me* can then be considered to have been eliminated by the spread of the long-vowel form to prevocalic environment. The same process occurred with the neuter plural (nominative/accusative) ending **-eA*, giving rise to the Vedic variation *-ā* /*-a*, from **-eA*/**-e*, and is probably the cause of several other short reflexes of long final vowels in Vedic.[19]

Less satisfactorily — only because the conditions under which such a form would arise are not entirely clear[20] — it may be argued that there was a zero-grade form of **meE* in which the laryngeal vocalized, giving Proto-Indo-European **mə* which, under the standard view of the outcome of Proto-Indo-European **ə*, would yield **mi*, or possibly **ma* if the view propounded by Burrow (1979) is accepted.

A relevant form here is the Tocharian particle *mā*, used in general (indicative) negation. This form is unlikely to be a borrowing from Indo-Iranian, because it is a basic vocabulary item. Thus one should look for an etymology for the form that treats it as inherited. One possible source for Tocharian *ā* in general, according to van Windekens 1976, is Proto-Indo-European **ə*, the vocalized counterpart of the laryngeal consonants. Thus, Tocharian *mā* could be from **mə*,[21] with a vocalized laryngeal. If so, then the Tocharian form would confirm the laryngealistic interpretation of **mē*, thereby opening the door for the emergence of a short-vowel form via the above-noted laryngeal-loss sandhi process before vowel-initial words.

In an indirect way, then, this comparative evidence supports the Sanskrit-internal arguments in favor of the likelihood of a short-vowel variant of *mā* in early, pre-Vedic Indic, and thus for the availability of a variant *mă* of *mā* that would give a prohibitive reading for (5) naturally and would at the same time fit the constraints of the metre of that verse.

Under this view, then, *ná mardhiḫ* in (5) shows the effects of a metrically induced selection among earlier allomorphs of *mā*, and subsequent reinterpretation of the synchronically opaque short-vowel form as the more usual short-vowel negative, *na*. The apparently anomalous syntax of (5), then, becomes understandable in terms of the diachronic phonological developments that gave rise to it. This conclusion, in turn, further supports Hoffmann's view of the injunctive and of the function of the negation particles vis-à-vis the injunctive.

5. To voice a word of caution in closing, it must be admitted that the explanation advanced here for *ná mardhiḫ* has a rather limited scope. The evidence supporting it is quite suggestive, and the significance of the explanation for Hoffmann's analysis of the injunctive is considerable. But it must be remembered that the hypothesis is most valid for just this one example. In particular, the argument from metrics that was crucial for the understanding of *ná mardhiḫ* does not extend naturally to the other possible occurrence of prohibitive *na* with the injunctive, the repeated example given in (4), since there, *na* occurs in a metrically indifferent slot. And given the evidence of examples such as (6), *mā* would be expected in such a metrically indifferent position.

It may be, of course, that example (4) does not really contain an injunctive but rather a root-aorist subjunctive, a possibility suggested earlier. Alternatively, one could suggest that once *na* plus the injunctive emerged as a pattern, even if it had its origins in metrical considerations, it was freed from the metre and could spread to other positions. Such a view would take passages like (5) as the locus for the innovative reanalysis and the other occurrences — if they are real — as

the extension of the new pattern. It is clear, though, that this is a pattern that did not spread very far, and in fact, on the way to Classical Sanskrit, together with the change in the verbal moods that included restricting the injunctive to just its prohibitive use, the syntax of the negative particles was rearranged.

To a certain extent, then, the developments discussed here may at the very least be an indication that the negative particles constituted a 'weak point' in Sanskrit syntax in the Vedic period and on into the Classical language, and hence represent an area for further potentially fruitful research.[22]

NOTES

*I wish to thank Alice Davison, Hans Henrich Hock, and Gary Holland for their helpful comments on an earlier draft of this paper. For different treatments of the topic of this paper, see Hejib & Sharma 1976 and 1977.

[1]Although these forms occur in various negative compounds, e.g. *nakis* 'no one', *mākis* 'no one', and the like, just the simplex negation particles are the focus of attention here.

[2]Actually, no first person dual forms are attested with *mā*, but given the rarity of dual forms in general, and in particular with prohibitive *mā* (only 17 duals out of a total of 287 prohibitive collocations with *mā*), this is most likely just an accidental gap in attestation.

[3]Following Hoffmann 1967, I classify as a separate verbal mood the 'injunctive' forms, i.e. what have also been called the 'augmentless preterit' — imperfect and (more commonly) aorist forms without the augment (= the prefixed past-tense marker *a*-).

[4]I am here excluding from consideration a few exceptions to this distribution to be found in the Vedic khilas (as noted, for example, in Macdonell 1975:430, fn. 5), though other Vedic — especially Rig-Vedic proper — exceptions are treated below. There are, of course, numerous exceptions to this pattern in later Sanskrit, where even Pāṇini's prescription is violated. These later patterns are briefly considered below (in note 7), though clearly much more can be said about them.

[5]Or at least 'quasi-prohibitive', for it is not always obvious how to distinguish among various possible interpretations and translations. Similarly, as Whitney (§580) notes, there are instances of *na* with the optative in Vedic and in later Sanskrit which have a (quasi-)prohibitive value. For example, he includes *ná riṣyema kadā́ caná* (6.54.9), cited above in (2b), translating it as 'May we not suffer harm at any time'. In such examples, however, the optative itself seems to be contributing at least as much, perhaps even more, to the modal meaning as the negation particle, inasmuch as an affirmative *riṣyema* can mean 'may we suffer harm'. Thus such a collocation seems to be quite different in nature from the prohibitive *mā* with the injunctive, where the negative particle itself appears to be the primary bearer of modal meaning (see the discussion below), and so can be excluded from consideration here.

[6]As Whitney (§78a) points out, pluta (i.e. overlong) vowels are rare in Vedic, but they may be used in cases 'of calling to a distance or urgently', and hence could well be appropriate in a prohibition.

[7]However, the occasional occurrence of *mā* with the imperative in the Vedic khilas (e.g. *mā paśya* 'do not see!' (3.15.17)) and, especially, more regularly later in Classical Sanskrit as the more common prohibitive pattern (e.g. *mā́ viṣīdata* 'do not be dejected', Hitopadeśa 3.4, or *mā ... paritāḍaya* 'do not strike', Kathāsaritsāgara 6.114) suggests that one might take *mā́ hṛṇīṭām* at face value as representing the beginnings of this later pattern.

[8]Note in this regard the tendency (alluded to by Hoffmann) for pluta vowels not only to become trimoric, but also to acquire a secondary nasalization (as in RV 10.146.1 *vindatiɜ̃m̃* = pluta form of *vindati*). Such a structure could conceivably have been reanalyzed as derived from a form in underlying *-m*. (On the issue of Vedic pluti, see also Strunk 1983.) [Editor's note.]

[9]If Whitney (§579b) is correct, however, in identifying a few instances of *mā́* with the optative (or the precative, derived from the optative) in later Sanskrit, then it may be that this Vedic collocation was ultimately interpreted by some speakers as a true optative, thus allowing other such combinations to arise. Such a later reinterpretation, if it did occur, would have no bearing, however, on the Vedic collocation in question.

[10]The augmented counterpart of this putative form, namely *ās*, is attested in Vedic. It later gave way to third singular forms with *-ī-* inserted between the root and the ending, i.e. *āsīt*.

[11]Admittedly, it is not entirely clear if the form of √*as-* would have occurred in this context, since √*as-* is ordinarily suppressed in purely copular function. It is true that a verb occasionally needs to be supplied with *mā*, but that is only when the verb is understood from previous context and never involves the independent supplying of √*as-*, as in 8.97.2 *tásmin tám dhehi mā́ paṇaú* 'Give him to this one, (do) not (give him) to the niggard', where an injunctive *dhās* is implicit with *mā*. Interestingly, with the negation particle *na*, a form of √*as-* can be implicit, that is, it can be underlyingly present though absent in surface structure, as in 1.105.16 *ná sá devā atikráme* 'this (path), O gods, (is) not for walking through'. Thus the possibility of having a form of √*as-* in a negated clause may be a function of which negation particle is present. However, even if √*as-* were a part of the *mā bhujéma* collocations at some level of structure, it would not have been present on the surface, because of the workings of regular sandhi processes (see note 12).

[12]That is, the regular sandhi development (diachronic and/or synchronic) would be:

/mā # as(t) # bhujema / → mās bhujema → [mā bhujema].

[13]By using the term 'all' here, I am purposely excluding one example in Vedic prose of what appears to be *mā* with an unambiguous subjunctive, *mā ... nír padyāsai* (ŚB 11.5.1.1); Whitney (§579d) feels that 'there is perhaps something wrong about the reading' in this line.

[14]The metrical side of this line is taken up in greater detail below.

[15]For example, in RV 6.60.4:

tā́ huve yáyor idám papné víśvam purā́ kṛtám indrāgnī́ **ná mardhataḥ**

'I call them both, of whom all that was formerly made is admirable; Indra and Agni are neglectful (of us).'

[16]Admittedly, this argument is weakened by two considerations. First, in Classical Sanskrit, two other long-vowel morphemes, the preverb/preposition elements *ā* and *acchā*, both trigger the doubling of *ch* to *cch* obligatorily. With the first of these two elements, there does not seem to be any other evidence suggestive of a short-vowel form, although for the latter, a short-vowel form *a(c)cha* does occur in Vedic. Second, in Vedic, there do not seem to be any instances with *mā* clearly triggering the doubling of *ch* to *cch*.

[17]The *-s* most likely represents the Albanian reflex of the Proto-Indo-European emphasizing element **kʷid* (cf. Hamp 1984).

[18]This 'rewriting' essentially involves the substitution of the sequence *e* + laryngeal for the reconstructed long vowel.

[19]For example, the variation between *-i* and *-ī* in the instrumental singular of *i*-stem nouns (e.g. *svasti* 'with well-being' as opposed to *ūtī* 'with aid'), is probably to be explained in the same way, since the fuller form of the ending *-yā* (e.g. *ūtyā* 'with aid') points to a reconstruction **-yeE* (and thus **-iE*/*-i* for the other variants). To be sure, though, there are numerous other alternations in vowel length in Vedic, usually involving nonfinal vowels, that are not explainable in this way (e.g. the metrically-induced variation of *dīdihí* with the more regular *didīhí*).

[20]In particular, different ablaut grades of a morpheme are usually associated with some different function of the element involved, e.g. a different nominal case, verbal category, etc., and no such difference seems likely in the case of the putative full-grade **meE* as opposed to the zero-grade **mə*. However, if, as seems likely, the origins of the morphologically-based ablaut are to be found in some phonetic aspect of the zero-grade syllables, for example a lack of accentuation, then **mə* could have been generated by some suprasegmental process, perhaps one ranging over a phrase or clause, affecting **meE*.

[21]There are other possible sources for Tocharian *ā*, and van Windekens himself (1976: 282-3) feels secondary influence of Sanskrit could have led to a lengthening of an inherited Tocharian **ma* (evident in the compound form *mar* of Tocharian A, used in prohibitions).

[22]The scope of such a study is considerable, given the rather large number of deviations, some of which are noted in this paper, from the general pattern stated at the outset. With the present paper as a starting point, I plan to embark on a more detailed study of the development of the various patterns of negation in Sanskrit, paying particular attention to the Classical Sanskrit situation.

Syntactic and discourse correlates of verb-initial sentences in the Rigveda*

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0. For over a century it has been recognized that in the Rigveda and in Vedic Sanskrit generally, the verb normally occupies final position in the sentence.[1] Exceptions to this pattern are, however, numerous.[2] The present discussion deals with those sentences in which the verb occupies sentence-initial position. Although one finds frequent mention of such sentences in the secondary literature, they are usually dismissed with cursory references to emphasis, use of imperatives, etc.[3] Even less illuminating is the widespread tendency to refer to such structures simply as 'marked', as if that alone explained their occurrence, and to say no more about them. A major reason for my interest in investigating the verb-initial sentences of the Rigveda is my dissatisfaction with their treatment in the literature; and the present study is intended as a contribution to our understanding of the conditions that in this case underlie markedness. The corpus I have investigated consists of maṇḍala 1 (hymns 1-101), maṇḍala 2, and maṇḍala 3 — in all, 206 hymns, or in whole-number terms, 20% of the Rigveda. I will understand 'sentence-initial verb' to mean any verb either in absolute sentence- or clause-initial position or following a number of possible initial strings consisting of combinations of conjunctive particles, vocatives, negative particles, preverbs, and sentence particles.[4] In either case, in order to qualify as sentence-initial, the verb must be followed by an overt argument (subject, object, adverb or adverbial phrase, etc.). Thus, a sentence consisting of a verb alone, such as *gámāma* 'we shall come' or *píba* 'drink!' would not qualify as verb-initial, nor would *ná hí prá yánti* 'for they do not go forth' or *nū́ gamāma* 'now we shall come', despite the fact that the items preceding the verb would otherwise qualify the verb as sentence-initial. On the other hand, sentences such as *gámāma vayám* 'we shall come', *píba tvám* 'drink thou', and *sám u prá yanti dhītáyaḥ* (10.25.4a) 'together and forward go (our) thoughts' would be considered verb-initial sentences by our criteria. The overall pattern of initial strings, together with some selected examples, is indicated in Table 1 below.[5]

The patterns in Table 1 may be illustrated by the following examples:

ádhākṛṇoḥ pṛthivîṁ saṁdṛ́śe divé (2.13.5a)	(ádha V)
utá prá ṇeṣy abhí vásyo asmā́n (1.31.18c)	(utá P V)
ā́d u bruvāte mithunā́ni nā́ma (3.54.7d)	(ā́d u V)
áthā ca bhūd ukthám índrāya śastám (3.53.3d)	(áthā ca V)

nṹ cid dadhiṣva me gíraḥ (1.10.9b)	(nṹ cid V)
evā́ jahi śátrum asmā́kam indra (2.30.4d)	(evā́ V)
utá bruvantu no nídaḥ (1.4.5a)	(utá V)
ā́d ṛdhnoti haviṣkṛtim (1.18.8a)	(ā́d V)
vā́yav índraś ca cetathaḥ | sutā́nām ... (1.2.5ab)	(Voc Nom ca V)
ádhvaryavo bháratendrāya sómam (2.14.1a)	(Voc V)
índrāgnī ā́ gatam sutám (3.12.1a)	(Voc P V)
ná ní miṣati suráṇo divé-dive (3.29.14c)	(Neg P V)
nā́tārīd asya sámṛtim vadhā́nām (1.32.6c)	(Neg V)
úpo ṣú śṛṇuhī́ gíraḥ (1.82.1a)	(P [u?] sú V)
ā́ tú prá yāhi harivo háribhyām (3.30.2b)	(P tú P V)
sám nú vocāvahai púnaḥ (1.25.17a)	(P nú V)
ā́ ghā gamad yádi śrávat (1.30.8a)	(P ghā V)
... ní ca satsīhá devaíḥ (1.76.4b)	(P ca V)
sám ha bruvate (á)dhvann ā́ (1.37.13b)	(P ha V)
antár hí khyó jánānām | ... védaḥ (1.81.9cd)	(P hí V)

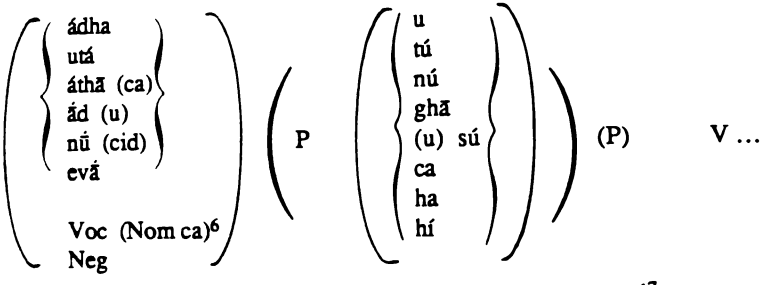

Table 1: Initial strings in 'verb-initial sentences'[7]

Aside from the vocatives and preverbs, all of the elements preceding the verbs in the above sequences are synchronically particles. Specifically excluded are enclitic pronouns. Thus, I do not count as verb-initial sentences structures such as the following:

(1) ā́ tvā viśantv índavaḥ (1.15.1b)
'Let the drops enter into thee here.'

(2) mā́ no ní kaḥ puruṣatrā́ ... (3.33.8d)
'Do not disparage us among men ...'

In each of these passages the enclitic pronoun functions as a direct object, so that the stretch extending from clause-initial position to the verb is nearly (in (2), unqualifiedly) a full OV sentence.[8] Since 'verb-initial sentence' implies a contrast with other possible positions of the verb, I have excluded from my investigation cases in which no contrast is possible: introductory ritual calls to the deities or worshippers, such as the initial clauses of the following:

(3) índréhi mátsy ándhasaḥ (1.9.1a)
'Come hither, Indra. Exhilarate thyself with the drink.'

(4) étắyāmópa gavyánta índram (1.33.1a)
'Come hither, let us go up to Indra, (we who are) eager for cows.'

(5) śagdhí pūrdhí prá yaṁsi ca | śiśīhí práśy udáram (1.42.9ab)
'Exert thyself, grant fullness, and stretch forth; sharpen, fill thy stomach!'

In the first of these, the opening call *índréhi* (= *índra ắ ihi*) 'Come hither, Indra' (Voc P V) would not contrast with *éhi* (= *ắ ihi*) *indra* (P V Voc), since both sentences would count as verb-initial by our criteria. Similarly, in example (4), *éta* (= *ắ ita*) 'Come hither' (P V) has the same verb-initial status as would a (nonoccurring) **itắ* (= **itá ắ*). Again, of the five clauses of (5), only the last (*práśy udáram*) counts as a verb-initial sentence.

Finally, I have considered as verb-initial sentences 27 instances in which a verb stands in (modified) initial position within a main clause integrally preceded by a relative clause, as in the following example:

(6) yád dha yắnti marútaḥ | sáṁ ha bruvate (á)dhvann ắ (1.37.13ab)
'When the Maruts drive, they speak to each other along the way.'

Such passages seem generally to pattern with verb-initial sentences and will be discussed in section 9 below.

Following the procedures just noted, I have arrived at a figure of 715 for the total number of sentence-initial verbs in my corpus. Multiplied by five, this would yield a total of 3,575 sentence-initial verbs in the Rigveda. Comparing this figure to that of 22,561 said by Avery (1880) to be the total number of finite verb forms in the Rigveda, we may estimate that just under 16% or between one in six and one in seven Rigvedic verbs is sentence-initial according to our criteria. The sheer quantity of such passages makes their close analysis a matter of considerable interest and importance.

The verb-initial sentences show a relatively even distribution in the various parts of both the hymn and the stanza. Cf. Table 2 below.

The disparity between the percentage of verbs in the positions specified in Table 2 and that in other, unspecified positions representing approximately the same number of pādas reflects the fact that the specified positions are those points in the line (viz. stanza and distich-initial position) most likely to correlate with sentence-initial position generally in the Rigveda.

In attempting to assess the function of a particular word order or construction which is entirely optional, one looks for concomitants or correlations rather than syntactic rules as such. Moreover, since fronting of constituents would appear to be a universal discourse strategy which is roughly associated with salience, our expectation is that such correlations as do occur are likely to be associated with aspects of the surrounding discourse structure rather than with the syntax of the sentence. Having sifted through the evidence, I have identified eight or more factors which appear to correlate with sentence-initial position of the Rigvedic verb. The remainder of this paper will discuss these correlations.

Corpus: 206 hymns, 2,133 stanzas, 7,681 pādas, 1,508 distichs (only in stanzas of more than three pādas[9])

Within the hymn:		
Opening Stanza:	84x	= 40.8% of hymns
Second Stanza:	77x (out of 205 hymns[10])	= 37.6% of hymns
Third Stanza:	97x (out of 205 hymns)	= 47.3% of hymns
Fourth stanza:	73x (out of 204 hymns)	= 35.8% of hymns
Fifth stanza:	67x (out of 198 hymns)	= 33.8% of hymns
Sixth Stanza:	63x (out of 189 hymns)	= 33.3% of hymns

Within the hymn and stanza (in order to simplify the statistics, only pāda-initial fronted verbs are considered[11]):

Hymn-initial:	25x	(12.1% of hymn-initial pādas)
Stanza-initial:	201x	(9.4% of stanza-initial pādas)
Distich-initial:	143x	(9.5% of distich-initial pādas)
Hymn-final pāda:	20x	(9.7% of hymn-final pādas)
Total:	389x	(50.08% of pādas)
	(= 58.2% of verbs in 3,847 pādas)	
Other positions:	279x	(49.92% of pādas)
	(= 41.8% of verbs in 3,834 pādas)	

Table 2: Frequency of sentence-initial verbs in various parts of the hymn and stanza

1. In an extremely cursory treatment of Vedic word order, Renou (1952:333) notes that the verb tends to be in final position, 'sauf l'impératif, qui est souvent initial' ('except the imperative which is often initial'). I have now been able to substantiate this statement with numerical statistics, once again using Avery's frequency figures for Rigvedic verbs. Cf. Table 3:

Fronted Indicatives:
292 (+ 48 injunctives) out of 13,140 indicatives in the Rigveda
= 2.59%

Fronted Imperatives:
307 (+ 1 injunctive) out of 5,647 imperatives in the Rigveda
= 5.45%

Fronted Subjunctives:
38 out of 2,891 subjunctives in the Rigveda
= 1.3%

Fronted Optatives:
29 out of 883 optatives in the Rigveda
= 3.28%

Table 3: Fronted verbs in the corpus as a percentage, by mood, of all verbs in the Rigveda

The 308 imperatives (including one injunctive with *mā́*) represent 5.45% of the total number of imperatives in the Rigveda, whereas the 340 indicatives (including 48 preterital, general, or future injunctives, all of which were counted as indicatives by Avery) represent only 2.59% of the 13,140 indicative verbs in the text. We conclude that an imperative is more than twice as likely to be fronted as an indicative. In discourse terms, this means that a call to a deity or participant in the worship is likely to precede the praise, entreaty, instruction, description, etc. of the one called; and such calls are a salient aspect of the texture of the Rigvedic hymns. Examples of verb-initial sentences showing the various modal types are the following:

(7) ásṛgram indra te gíraḥ (1.9.4a) (indicative)
'The songs (of praise) to thee have been released, O Indra.'

(8) ví jānīhy ā́ryān yé ca dā́syavaḥ (1.51.8a) (imperative)
'Distinguish the Aryans and the Dasyus!'

(9) ā́ ghā gamad yádi śrávat | sahasríṇībhir ūtíbhiḥ | vā́jebhir úpa no hávam (1.30.8) (subjunctive)
'He will come hither, if he hears, with (his) thousandfold aids, with booties, up to our call.'

(10) vidhéma te paramé jánmann agne (2.9.3a) (optative)
'We would worship thee in thy highest birthplace, O Agni.'

(11) bhájanta víśve devatvā́ṁ nā́ma | ṛtā́ṁ sápanto amṛtam évaiḥ (1.68.4) (injunctive; cf. Hoffmann 1967:141)
'All have a share in (his) divinity, in (his) name, cultivating immortal truth in the (proper) ways.'

2. Over 10% (75) of the sentence-initial verbs in our corpus appear in iteratively anaphoric structures,[12] as opposed to only seven anaphoric verbs not in sentence-initial position. Moreover, in cases where other forms (nouns, pronouns, adjectives, etc.) appear in iteratively anaphoric sequences within the hymns of our corpus, they may be fronted as well, blocking any possible verb-fronting in these sentences. Cf. the following instances involving iterated fronted pronouns.

(12) tát tvā yāmi bráhmaṇā vándamānas | tád ā́ śāste yájamāno havírbhiḥ (1.24.11ab)
'For that do I beseech thee, praising (thee) with the formulation. That does the one worshipping with the oblations pray for.'

(13) asmé tád indrāvaruṇā vásu ṣyād | asmé rayír marutaḥ sárvavīraḥ (3.62.3ab)
'Among us may that good be, O Indra (and) Varuṇa, among us, O Maruts, wealth consisting of all manner of heroes.'

The examples just cited show that a clear relationship exists between repetition and fronting. Some examples of iteratively anaphoric verb-initial sentences are the following:

(14) hváyāmy agním prathamā́ṁ svastáye | hváyāmi mitrā́váruṇāv ihā́vase || hváyāmi rā́trīṁ jágato nivéśanīṁ | hváyāmi devā́ṁ savitā́ram ūtáye (1.35.1)

'I call first Agni for well-being; I call Mitra (and) Varuṇa here for aid; I call night, the one bringing to rest the moving (world); I call the heavenly Savitṛ for aid.'

(15) vidhéma te paramé jánmann agne | vidhéma stómair ávare sadhásthe (2.9.3ab)
'We would worship thee in thy highest birthplace, O Agni; we would worship (thee) with praises in thy lowest dwelling place.'

(16) stávā nú ta indra pūrvyā́ mahā́ny | utá stavāma nū́tanā kṛtā́ni || stávā vájram bāhvór uśántaṁ | stávā hárī sū́ryasya ketū́ (2.11.6)
'I shall praise now thy previous great (deeds), O Indra; and we shall praise (thy) current deeds. I shall praise the willing cudgel in thy arms; I shall praise (thy) two bay steeds, the beacons of the sun.'

(17) pā́ti priyáṁ ripó ágram padáṁ véḥ | pā́ti yahvás cáraṇaṁ sū́ryasya || pā́ti nā́bhā saptáśīrṣāṇam agníḥ | pā́ti devā́nām upā́madam ṛ́ṣváḥ (3.5.5)
'He protects the dear highest point of the earth(?), the footstep of the bird; the young one protects the course of the sun. Agni protects the seven-headed one in the navel (of the earth); the towering one protects the exhilarator(?) of the heavenly ones.'

A measure of the close interrelationship between anaphora and fronting can be seen in the following passage:

(18) dā́ no agne bṛható dā́ḥ sahasríṇaḥ (2.2.7a)
'Give us, O Agni, lofty, give us thousandfold (wealth).'

Out of 28 verbs in this hymn it is precisely these two iteratively anaphoric verbs which alone are sentence-initial.

In another 170 or so passages, parallel verb forms stand at the head of mostly short, adjacent clauses. In a few other instances the verb forms are not parallel. This is part of a larger phenomenon which I shall term 'clustering': the tendency for sentence-initial verbs to occur near each other in the hymn. Examples of this phenomenon are the following:

(19) sasántu tyā́ árātayo | bódhantu śūra rātáyaḥ (1.29.4ab)
'Let the non-givers sleep; let the givers awake, O hero.'

(20) aviḍḍhîndra citráyā na ūtī́ | kṛdhí vṛṣann indra vásyaso naḥ (2.17.8cd)
'Aid us, O Indra, with thy gleaming aid. Make us better, O bull Indra.'

(21) ágachad u vípratamaḥ sakhīyánn | ásūdayat sukṛ́te gárbham ádriḥ || sasā́na máryo yúvabhir makhasyánn | áthābhavad áṅgirāḥ sadyó árcan (3.31.7)
'The first of the poets came, acting as a friend. The rock brought its embryo to maturity for the well-doing one. The young hero, battling, was victorious together with the (other) young men. And then did the Angiras straightway become a singer.'

3. Within traditional rhetorical theory, the antithesis of parallelism, including both anaphora and responsion, is chiasmus, or mirror-image ordering of the type ABBA. An extremely common pattern in our corpus is the juxtaposition of sentence-initial verbs with sentence-final ones. Especially interesting are those cases in which the first clause or sentence has a final verb and the second has an initial verb. I count 170 instances of this type, almost to the number the same as the nonanaphoric parallel passages. This identical frequency may be taken as illustrating, at least provisionally, the equal prevalence of parallelism and chiasmus as rhetorical processes. Some examples are the following:

(22) imé sómā áraṁkṛtāḥ | téṣām pāhi śrudhī́ hávam (1.2.1bc)
'These somas have been properly prepared. Drink of them! Hear (our) call!'

(23) asmé bálāni maghávatsu dhattaṁ | kṛṇutáṁ no adhvaráṁ śruṣṭimántam (1.93.12cd)
'Set strength among us, among the liberal ones. Cause our ceremony to be given a hearing (among the heavenly ones).'

(24) puraṁdaró dā́sīr airayad ví || ájanayan mánave kṣā́m apáś ca (2.20.7bc)
'The splitter of citadels burst apart the Dāsic (citadels). He begot land and waters for Manu.'

(25) ā́ haryató yajatáḥ sā́nv asthād | ábhūd u vípro hávyo matīnā́m (3.5.3cd)
'The one worth longing for, worthy of worship has mounted the back (of the altar). And the poet, the one to be called upon with thoughts, has come into existence.'

The short, serial nature of the anaphoric, parallel, and chiasmic structures is paralleled by the content of these passages, which frequently involve narrative or prescriptive seriation. Particularly significant is the correlation with the conjunctive particles *áthā* and *u*. Of 31 occurrences of the former appearing in our corpus, twelve are followed immediately by sentence-initial verbs, as in the following passages:

(26) mūrdhā́ divó nā́bhir agníḥ pṛthivyā́ | áthābhavad aratī́ ródasyoḥ (1.59.2ab)
'Agni is the head of heaven (and) the navel of earth. And he has become the spoke-wheel[13] of both worlds.'

(27) prá sú víśvān rakṣáso dhákṣy agne | bhávā yajñā́nām abhiśastipā́vā || áthā́ vaha sómapatiṁ háribhyām (1.76.3a/c)
'Burn away well all the demons, O Agni; become the protector of the worships from dishonor; and convey hither the master of the soma with (his) two bays.'

(28) índra óṣadhīr asanod áhāni | vánaspátīṁr asanod antárikṣam || bibhéda valáṁ nunudé vívāco | (á)thābhavad damitābhíkratūnām (3.34.10)
'Indra won the plants, the days, he won the trees, the atmosphere. He split the cave, thrust (apart) the contending parties, and in this way became the tamer of those determined (to resist him).'

Of the above passages, (26) and (27) show simple intersentential conjunction ('and') with *áthā* equivalent to *utá*, whereas (28) shows the more original sense '(and) in this way' associated with *áthā* (cf. Klein 1985:2.67-72). The latter also shows a rare instance of nonfronted anaphora (*asanot ... asanot*).

In the case of *u*, all seven verbs after which this particle appears in our corpus are sentence-initial. Examples are the following; cf. also (21) and (25) above.

(29) ábhūd u bhā́ u[14] aṁśáve ... ||| ábhūd u pārám étave | pánthā ṛtásya sādhuyā́ (1.46.10, 0, 11)
'Radiance has come into existence for the (soma) stalk ... | And the path of truth has come into existence (in order for us) to go successfully to the far side.'

(30) dadhanvé vā yád īm ánu | vócad bráhmāṇi vér u tád (2.5.3)
'As soon as he has run along (his course) he speaks the formulation and he attends to that (function).'

The association of *u* with seriation and anaphora is an established fact (Klein 1978:148-152 et passim; 1985:2.6-56); and this plus the association of serial and/or anaphoric verbs with sentence-initial position explains the 100% correlation between postverbal *u* and verb-initial sentences in our corpus.

Taken together, the anaphoric, parallel, and chiasmic passages account for nearly 60% of the verb-initial sentences in our corpus. The seriation so frequently seen in these passages is intimately linked with textual boundedness — the subordination of a sentence to its larger discourse context. We have here confirmation of what I shall call 'Dressler's Principle' (Dressler 1969:3): Verb-initial position (viz. in Indo-European) 'charakterisiert als W[ort]St[ellungs]-Variante textuell gebundene Sätze' ('characterizes as a word order variant textually bound sentences'). Dressler formulated his principle independently, it would appear, of the evidence of the Rigveda, so that its confirmation in our most substantial old Indo-European corpus is a matter of some importance.

4. In a number of cases, sentence-initial verbs appear to correlate with simultaneity between the event referred to in the hymn and actions occurring at the same time within the ritual. In many instances, as well, the mere mention of some particular action is tantamount to its effectuation, whether in a literal or metaphorical sense. Examples of this feature, which I will describe as 'simultaneous/performative', are particularly frequent in hymn-initial position. In order to determine whether this correlation is significant, I have examined the initial stanza of every hymn in our corpus in order to determine the number of sentence-initial and non-sentence-initial verbs showing the simultaneous/performative feature. I have omitted imperatives, which are not performative and show no relevant opposition along the simultaneous/non-simultaneous axis — a fact which puts the frequency of sentence-initial verbs at a disadvantage. Nevertheless, the ratio of non-sentence-initial verbs to sentence-initial verbs involving performative or simultaneous action is 78 : 19 or about 4 : 1. When compared to the figure of about 6 : 1 for the Rigveda as a whole, these data indicate a positive correlation

between verb fronting and performative and simultaneous action. Some examples are the following:

(31) yuñjánti bradhnám aruṣáṁ | cárantam pári tasthúṣaḥ | rócante rocanā́ divíˌ ||| yuñjánty asya kā́myā | háriˌ ... ráthe (1.6.1, 2ab)
'They yoke the ruddy *bradhna* wandering around the standing (world). The luminous spheres shine in heaven. | They yoke his two beloved bay (steeds) ... onto the chariot.'

(32) huvé vaḥ sudyótmānaṁ suvṛktíṁ | ... agníṁ ... (2.4.1ab)
'I call the well-shining Agni, (who is) your hymn ... '

(33) añjánti tvā́m adhvaré devayánto | vánaspate mádhunā daívyena (3.8.1ab)
'Those devoted to the heavenly ones anoint thee at the ceremony, O tree, with heavenly sweetness.'

To these may be compared the following passages, involving non-sentence-initial verbs:

(34) ihéndrāgnī́ úpa hvaye (1.21.1a)
'I call upon Indra (and) Agni here.'

(35) índrasya nú vīryā̃ṇi prá vocam (1.32.1a)
'I shall proclaim now the heroic deeds of Indra ... '

(36) imā́ gíra ādityébhyo ghṛtásnūḥ | sanā́d rājabhyo juhvā́ juhomi (2.27.1ab)
'These songs tipped with ghee do I pour out with my tongue to the Ādityas, the kings from of old.'

There are also metrical/formulaic aspects of verb-fronting (cf. section 6 below), as revealed by the nonoccurrence of sentence-initial verbs in *(-)V̄mahe* (such as *havāmahe, bharāmahe, manāmahe, īmahe*). That a certain amount of pure poetic variation occurs as well can be seen by a comparison of (37) and the identically structured (38):

(37) agníṁ ī́ḷe puróhitaṁ | yajñásya devā́m ṛtvíjam | hótāraṁ ratnadhā́tamam (1.1.1)
'I call upon Agni, the domestic priest, the heavenly ministrant of the worship, the Hotṛ, the first of those giving wealth.'

(38) ī́ḷe agníṁ vipaścítam | gírā yajñásya sā́dhanam | śruṣṭī́vā̃naṁ dhitā́vānam (3.27.2)
'I call upon Agni, the one knowing the inspiration, the successful effectuator of the worship, with (my) song, the one willing to listen, the keeper of (our) thoughts(?).'

5. Widespread among most ancient languages known to me is the fronting of verbs of speaking before a quotation. This phenomenon seems in many instances to correlate with authoritative statements. We may note the Biblical Hebrew type normally translated as 'Thus sayeth the Lord', which is a frequent introduction to a prophecy. Cf. the following:[15]

(39) kō ʔāmar yhwh ʿal-šəlošā pišʿē dammeśeq wəʿal-ʔarbāʿā loʔ ʔᵃšībennū (Amos 1.3 et passim)

'Thus hath the Lord spoken: "For three transgressions of Damascus, even for four I will not revoke it."'

(40) kō ʔāmar ʔᵃdonāy yhwh leʔᵉdom šəmūʿā šāmaʿnū mēʔēṯ yhwh (Obadiah 1)
'Thus hath the Lord God spoken concerning Edom: "We have heard a message from the Lord."'

(41) kō ʔāmar yhwh ʔim-šəlēmīm wəkēn rabbīm (Nahum 1.12)
'Thus hath the Lord spoken: "If they be full (in strength) and likewise many ... "'

Note also in the Greek New Testament passages such as *kaì légei autoîs ho Iēsoûs hóti* + QUOTE (Mark 14.27) 'And Jesus says to them ... '. Verb fronting is seen in the standard paragraph-opening *θātiy Dārayavauš xšāyaθiya* 'Darius, the king, says ...' of the Old Persian Behistun Inscription, as well as in, for example, the opening of the Avestan Ardvī Sūr Yašt 5.1 *mraoṯ ahurō mazdå spitamāi zaraθuštrāi* 'Ahura Mazda said to Spitamid Zarathustra ... '. It occurs in the Brāhmaṇas in the construction *sá hovāoa gārgyaḥ* (Hock 1982a) with the ever-present initial deictic element of these texts, where it is also said to be associated with a certain authoritativeness on the part of the speaker. That such fronting within English as well possesses an archaic flavor of authority or perhaps mystery can be seen from Edgar Allen Poe's *Quoth the Raven, 'Nevermore.'* There is every reason to believe that fronting of verbs of speaking before a quotation is a feature inherited from Proto-Indo-European. It is not common in the Rigveda, but does occur three times in our corpus, as follows:

(42) utá bruvantu no nído | nír anyátas cid ārata | dádhānā índra íd dúvaḥ (1.4.5)
'(And) let our revilers say, "Ye have forfeited (favor) from (all) other quarters, placing honor on Indra alone."'

(43) utá bruvantu jantáva | úd agnír vṛtrahājani | dhanaṁjayó rāṇe-raṇe (1.74.3)
'And let the people say, "Agni, the smiter of the obstacle, has been born, the winner of the prize in battle after battle."'

(44) ná vocāma mā́ sunotéti sómam (2.30.7b)
'We shall not say, "Do not press soma (for him)."'

Of particular interest is (44), where the quotation *mā́ sunotéti sómam* 'Do not press soma' is itself a verb-initial sentence.

6. A lexical aspect of Rigvedic verb-fronting which requires special discussion is the behavior of *han-* 'smite'. Because this verb shows a greater tendency to be fronted than any other in our corpus, I have investigated all finite non-reduplicated, non-passive forms of *han-* in the Rigveda and discovered that of 172 cases in which the direct object is overtly present and unambiguously positioned, 95 or 55.2% show the order VO. Of these, 78 are verb-initial sentences. This figure is rendered all the more remarkable by the fact that imperatives comprise only 37.9% of these passages (36 of 95), a figure considerably lower than that of 49.4% (38 of 77) for the number of imperatives in the OV structures. We would

expect a fair number of the imperatives in the VO structures to be sentence-initial, but the overwhelming pervasiveness of this feature (77.8%: 28 of 36) is surprising. On the other hand, the sentence-initial imperatives represent only 35.9% of the sentence-initial instances of *han-* (28 of 78).

A study of the collocations involving *han-* reveals a far greater number of formulaic, metrically integral syntagms among the VO passages than among the OV ones. Thus, to limit ourselves to citation of passages within our corpus, we find the following:

(45) áhann áhim ánv apás tatarda (1.32.1c)
áhann áhim párvate śiśriyāṇám (ib.2a)
áhann áhim pariśáyānam árṇaḥ (3.32.11a)
áhan vṛtráṁ vṛtratáraṁ vyàṁsam (1.32.5a)
áhan vṛtráṁ nír apáṁ aubjad arṇavám (1.85.9d = 1.56.5d [aubjo])
áhan vṛtrám ádadhus túbhyam ójaḥ (3.47.3d)
ápāhan vṛtrám paridhíṁ nadînām (3.33.6b)
hatá vṛtráṁ sudānavaḥ (1.23.9a)
háno vṛtráṁ jáyā apáḥ (1.80.3d)
(índro dāśad dāśúṣe) hánti vṛtrám (2.19.4b)
(víśvā veda jánimā) hánti śúṣṇam (3.31.8b)
áhan vyàṁsam uśádhag váneṣu (3.34.3c)

In all of the above passages we find short sentence-initial VO structures involving a form of *han-* together with a limited set of objects (*áhim, vṛtrám, śúṣṇam, vyàṁsam*), each of which refers to a snakelike or demonic adversary of Indra. Each collocation forms an integral metrical opening or coda of a dimeter or trimeter line. These features, then, have all the earmarks of formulas. The inherited Indo-European verbal formula in which a hero slays a serpent or dragon has been discussed by Watkins (1986), who presents the word equation of Vedic *áhann áhim* ... and Avestan Yašt 9.8 *yō janaṯ aẑīm dahākəm* 'who slew Aži Dahāka' (*áhann áhim = janaṯ aẑīm*), as well as such Greek parallels as Pindar *épephnén te Gorgóna* (P. 10.46) 'he slew the Gorgon' (where *épephnén* from **g^{w}hen-* = Skt. *han-*) and *kteîne*... *óphin* (P. 4.249) 'he killed the serpent' (where *óphin* = Skt. *áhim*). The inherited nature of the syntagm is unmistakable. The OV structures involving *han-* on the other hand, do not show such formulaic behavior: The collocations represented are far more varied and by and large do not comprise metrically integral structures. Cf. the following, culled once again from our corpus:

(46) káṁ hánaḥ káṁ vásau dadhaḥ (1.81.3d)
'Whom wilt thou smite, whom wilt thou set in wealth?'

(47) purā́ púraṁ sám idáṁ haṁsy ójasā (1.53.7b)
'Citadel upon citadel dost thou smite totally with (thy) power.'

(48) párā ha yát sthiráṁ hathá (1.39.3a)
'What is solid, smash apart.'

(49) úd va ūrmíḥ śámyā hantu (3.33.13a)
'Let your wave drive the yoke pins out (of the mire).'

(50) ví durgā́ ví dvíṣaḥ puró | ghnánti ... (1.41.3ab)
'They smite off difficulties and hostilities from before (them).'

(51) nákiṣ ṭáṁ ghnanti ... | yá ādityā́nām bhávati práṇītau (2.27.13c)
'None smite him ... who is under the guidance of the Ādityas.'

(52) sṛké yát tvā pratyáhan ... (1.32.12b)
'... when he smote his two fangs against thee.'[16]

Significantly, none of the above passages has anything to do with the slaying of serpents, and in (52) it is precisely the serpent which smites Indra, as if the inverted OV structure were an iconic representation of the reversal in the roles of hero and serpent.

We may therefore assume an Indo-European formulaic syntagm in which a hero smites a serpent and which is characterized by VO word order, in particular with a sentence-initial verb. From the point of view of Indo-European sentence-structure, this syntagm is marked. One can only speculate on the reasons for this. Perhaps the tale of the hero smiting a serpent designated an event of such cultural, indeed cosmic significance to the Indo-Iranians (or their Indo-European forebears) that its very mention, belonging to the realm of the heroic, entailed an iconic bouleversement of normal word order.

7. In addition to the factors so far considered, there may be others related to verb fronting that I have so far not been able to establish beyond a doubt. Among these I shall mention the possibility that fronting may be employed in conjunction with a transition from one deity to another. This is suggested by (53), in which each distich refers to a different deity, and each new deity is introduced by a verb-initial sentence:

(53) śrudhí śrutkarṇa váhnibhir | devaír agne sayā́vabhiḥ || ā́ sīdantu barhíṣi mitró aryamā́ | ... ||| śṛṇvántu stómam marútaḥ sudā́navaḥ | ... || píbatu sómaṁ váruṇo dhṛtávrato | (a)śvíbhyām uṣásā sajū́ḥ (1.44.13, 14)
'Hear, thou with ears for hearing, with the (chariot-)conveying heavenly ones accompanying (thee), O Agni. Let Mitra (and) Aryaman sit here on the barhis ... | Let the Maruts, having good gifts, hear (our) praise ... Let Varuṇa, whose command is firm, drink soma, together with the two Aśvins (and) with Uṣas.'

Related to the above is the possibility that verb-initial position may be used to mark an abrupt transition in the discourse, as when a sentence or clause is interpolated within a larger structure. The two examples of such interpolations in our data are both verb-initial sentences:

(54) vayáṁ te váya indra viddhí ṣú ṇaḥ | prá bharāmahe vājayúr ná rátham (2.20.1ab)
'The source of youthful vigor, O Indra — know us well! — do we bring forth to thee like one eager for booty (leads forth) his chariot.'

(55) devā́ṁ áchā dīdyad yuñjé ádriṁ | śamāyé agne tanvàṁ juṣasva (3.1.1cd)
'Shining unto the heavenly ones — I yoke the rock, I toil (in the worship) — O Agni, find pleasure in thyself.'

8. As noted in section 0 above, the fronting of constituents seems universally to be associated with salience, however that term may in any particular instance be understood. One possible interpretation of salience is focus. I have so far avoided mention of this term, because focus is extremely difficult to demonstrate in an objective manner. Nevertheless, I shall here note a set of miscellaneous passages, all of which fairly clearly represent focus-fronting of the verb. Among the associated discourse factors are particularly strong spatial deixis-cum-anaphora (56), temporal opposition-cum-root anaphora (57), and vignette-like depictions replete with vivid similes (58) and (59):

(56) ástīdám adhimánthanam | ásti prajánanaṁ kṛtám (3.29.1ab)
'This is the place of the rubbing. The rubbing stick is finished.'

(57) uvā́soṣā́ uchā́c ca nú (1.48.3a)
'The dawn has shone and now will shine.'

(58) árcanti nā́rīr apáso ná viṣṭíbhiḥ (1.92.3a)
'They (viz. the dawns) sing like women busy at their work.'

(59) ukṣánte áśvāṁ átyāṁ ivājíṣu (2.34.3a)
'They sprinkle (their) horses like (one sprinkles) coursers in the contests.'

An example of verb-fronting as a stage-setting device is seen in (60), which opens with an impersonal passive of an active verb. The absence of an overt agent establishes beyond a doubt the focus on the verbal action in and of itself. The taking of the drink then serves as the point of departure for the exhilaration (2a *asyá mandānáḥ*) and the hewing apart of the serpent (2b *áhim ... ví vṛścat*):

(60) ápāyy asyā́ndhaso mádāya | ... suvānásya práyasaḥ ... ||| asyá mandānó mádhvo vájrahasto | (á)him índro arṇovṛtaṁ ví vṛścat (2.19.1ab, 2ab)
'A drink has been taken of this juice for exhilaration, ... of the pressed balm ... | Exhilarating himself of this honey, Indra, with cudgel in hand, hewed apart the serpent obstructing the flood.'

9. Having considered now all the passages in which the verb is 'sentence-initial' according to the criteria set forth in section 0, we shall next investigate a number of special conditions in which the verb is clause-initial but preceded by various integral phrases or clauses within the same sentence. Chief among these are 27 instances in which the verb stands in initial position following a relative clause. These passages fall into three categories: those in which there is no anaphoric demonstrative (16x), those in which an anaphoric demonstrative follows the verb (contiguously or otherwise) (6x), and those in which an anaphoric conjunctive element precedes the verb (5x). Some examples are the following:

(61) yádī mánthanti bā́hubhir ví rocate | (á)śvo ná vā́jy àruṣó váneṣv ā́
(3.29.6ab)
'When they rub him with their arms, he shines out, like a ruddy racehorse, in the wood.'
(No anaphoric demonstrative.)

(62) yásmād yóner udárithā yáje tám (2.9.3c)
'From which womb thou hast arisen, I worship that.'
(An anaphoric demonstrative follows the verb.)

(63) yád áyukthā aruṣá róhitā ráthe | ... || ád invasi vanína dhūmáketunā (1.94.10a,c)
'When thou hast yoked thy two fiery-red horses on (thy) chariot ..., then dost thou bestir the trees with thy (chariot) whose beacon is smoke.'
(An anaphoric conjunction precedes the verb.)

In another 23 passages a verb-initial clause is integrally preceded by one or more participles or participial phrases, while two additional cases involve fronted gerundial phrases. The fronted participial phrase may itself be immediately attendant upon a preceding relative clause. Some examples are the following:

(64) jaghanvā́m̐ u háribhiḥ sambhṛtakratav | índra vṛtrám mánuṣe gātuyánn apáḥ || áyachathā bā́hvór vájram āyasám | ádhārayo divy á sū́ryam dṛśé (1.52.8)
'Having smashed the obstacle together with thy bay steeds, O thou whose determination is concentrated, O Indra, (and) making a way for the waters for Manus, thou hast taken thy iron cudgel in thy two arms. Thou hast made fast the sun in heaven in order (for it) to be seen.'

(65) kánikradaj janúṣam prabruvāṇá | íyarti vā́cam aritéva nā́vam (2.42.1ab)
'Neighing, speaking forth his birth, he sets in motion his voice like a steersman a ship.'

(66) jātá ā́pṛṇo bhúvanāni ródasī (3.3.10c)
'Having been born, thou didst fill up the creations, the two worlds.'

(67) ádhvaryavo yán naraḥ kā́māyādhve | śruṣṭī́ váhanto naśathā tád índre (2.14.8ab)
'O Adhvaryus, what ye desire, O men, conveying (the oblation) with obedience, ye obtain that in Indra.'

Fronted gerundial phrases are seen in the following cases:

(68) svápnenābhyúpyā cúmurim̐ dhúnim̐ ca | jaghántha dásyum ... (2.15.9ab)
'Having put to sleep Cumuri and Dhuni, thou hast smitten the Dasyu.'

(69) asmín yajñé barhíṣy á niṣádyā | dadhiṣvémā́m jaṭhára índum indra
'Having sat down here at this worship on the barhis, receive the drop in thy stomach, O Indra.' (3.35.6cd)

Closely related to the above are eight passages in which the sentence-initial verb is preceded by what I shall term an 'as-phrase'. Such a phrase may consist of one or more adjectives or substantival participles, normally but not exclusively translatable in English with 'as' and predicating a quality of a deity on the basis

of which some action is requested or a further predication made by means of a finite verb. Examples are the following:

(70) íśāno yavayā vadhám (1.5.10c)
'As a mighty one, hold off the deadly weapon.'

(71) vṛ́ṣā yajasva havíṣā vidúṣṭaraḥ (2.16.4c)
'As a bull, worship with the oblation as the wiser one.'

(72) anānudó vṛṣabhó jágmir āhavám̐ | níṣṭaptā śátrum pṛ́tanāsu sāsahíḥ | ási satyá ṛṇayáḥ ... (2.23.11a/c)
'An unyielding bull hastening into battle, burning off the rival, powerful in the battles, thou art a true repayer of debts ...'

(73) gopā́ ṛtásya dīdihi své dáme (3.10.2c)
'As a protector of truth, shine out in thy own home.'

It can be seen that the distinction between such 'as-phrases' and sentence-initial vocatives is often very slight. Hence our decision to recognize this type as separate from, but related to, the verb-initial sentences.

In twenty cases a 'sentence-initial verb' is preceded by an integral simile. These passages are closely related in function to the preceding group; for while the 'as-phrase' presents an existing or essential quality of the deity, the simile presents a qualitative comparison of the deity or his action with something dissimilar. Once again, a relative clause may precede the simile. Examples include the following:

(74) ghanéva vajriñ chnathihy amítrān (1.63.5d)
'As if with a mace, pierce the enemies, O cudgel-bearer.'

(75) átyo ná ráthyo dodhavīti vā́rān (2.4.4d)
'Like a chariot horse he shakes his mane.'

(76) dā́meva vatsā́d ví mumugdhy áṁhaḥ (2.28.6c)
'Unbind straitened circumstance (from me) like a strap from a calf.'

(77) yád yuñjáte marútaḥ ... | áśvān rátheṣu ... || dhenúr ná śíśve svásareṣu pinvate | jánāya rātáhaviṣe maháṁ íṣam (2.34.8)
'When the Maruts yoke ... their horses onto the chariots ..., they make great nourishment swell for the mortal whose oblation has been given, like a cow for its young in the pastures.'

The final set of passages we shall consider here are 18 cases in which the verb appears in 'sentence-initial position' following a conjunctive or adverbial relative pronoun. These passages have certain features in common with those involving fronted verbs following the sentential conjunctions *utá*, *áthā*, *ádha*, and *ā́d*, the last two of which often serve as anaphoric correlatives. This parallelism, when taken together with the diachronic evidence for the original nexal status of *sá*-figé, suggests that *yá*- belonged originally as well to the set of nexal elements. Some examples are the following:

(78) tā́m̐ uśató ví bodhaya | yád agne yā́si dūtyàm (1.12.4ab)
'Awake those desirous (heavenly ones) when, O Agni, thou drivest on thy embassy.'

(79) yád udîrata ājáyo | dhṛṣṇáve dhīyate dhánā (1.81.3ab)
'When the battles arise, the prize is set out for the bold one.'

(80) ágnīṣomā céti tád vīryàṁ vāṁ | yád ámuṣṇītam avasám paṇíṁ gắḥ (1.93.4ab)
'O Agni (and) Soma, that heroic deed of yours has been perceived, that you deprived the Paṇi of his nourishment, the cows.'

(81) yáthắpibaḥ pūrvyắṁ indra sómāṁ̃ | evắ pāhi pányo adyắ návīyān (3.36.3cd)
'As thou didst drink the previous somas, O Indra, so drink anew today as the one to be honored.'

Other passages of a similar type which have already been discussed or cited are (61), (63), and (77). Notice that the verb of the main clause may itself be fronted in accordance with the first paragraph of this section.

10. The passages discussed in section 9 are of course not verb-initial sentences even by our rather generous criteria, but they give us further information about conditions under which a verb may be drawn toward the head of its clause and precede its subject (if overtly present) and object. I have no information on just how general these (modified) frontings may be in the Rigveda as a whole, so that the inclusion of these passages in this paper is meant to be merely suggestive of further features to be considered in the context of verb-fronting generally in the Rigveda.

11. Let me briefly summarize the preceding discussion: In defining eight or more syntactic and discourse correlates of verb-initial sentences in the Rigveda, I have, I hope, contributed to the explication of the notion 'marked word order' in this, our most extensive ancient Indo-European text. If the proper understanding of these features, and perhaps others not yet identified, can be integrated into future grammars and discussions centering upon Vedic and Indo-European word order, then our understanding of the syntax and discourse structure of the Indo-European language family can only be enriched.[17]

Notes

*This is a significantly expanded and revised version of an earlier paper of the same title (Klein To Appear). The latter was presented orally at the Workshop on Syntax and Sense in Vedic held as part of the VIIth World Sanskrit Conference, 27 August 1987, Leiden, The Netherlands. A still earlier version was read at the Ninth South Asian Language Analysis Roundtable (SALA), 7 June 1987, Syracuse, New York.

[1]Cf. for example, Delbrück 1878 and 1888:16, Wackernagel 1892:427 (= 1969:95), and Speijer 1896:76. The position of the verb in Sanskrit generally was investigated in detail by Gonda (1952). For these and other bibliographical references together with critical discussion, cf. Gonda 1971:146-153.

[2]Two classes of exceptions which have been given extensive treatment are the so-called 'amplified sentences', in which the verb appears sentence-medially, but where the stretch extending from sentence-initial position to the verb is in and of itself a complete thought (Gonda 1959), and the prose type *sá hovāca gārgyaḥ*, in which a verb of speaking appears in virtual second position following a deictic element plus particle(s) and is itself followed by a quotation (Hock 1982a).

[3]An exception is Gonda 1952, who gives full consideration to verb-initial sentences throughout the history of Sanskrit. However, his section on the position of the verb in the Rigveda occupies only 73 lines and is based entirely on the 30 hymns included in Macdonell's reader (1917). Nevertheless, Gonda's study is still the most complete treatment that we possess, and his conclusions are largely corroborated on the basis of the much larger data sample employed in the present study.

[4]In her commentary on Klein To Appear, Annemarie Etter (To Appear) states that sentences in which the verb occurs in absolute initial position should be handled separately from those in which it appears in modified initial position, i.e. following any of the initial strings listed in Table 1. She notes that the verb in absolute sentence-initial position is accented, which a priori ought to have syntactic or discourse-level implications. On strict methodological grounds she is doubtless correct, and a monographic discussion of verb-initial sentences in the Rigveda would surely have to treat such sentences separately. However, in sifting through the data of my corpus, I could find no relevant syntactic or discourse features distinguishing sentences in which the verb stands in absolute sentence-initial position from those in which it appears in modified initial position. Given the scope of this paper, I have once again decided to treat both types of passages together. However, so that the reader will not have to accept completely on faith my assertion of the functional identity of two superficially distinct sentence types, in the following discussion I provide wherever possible examples with both absolute-initial and modified-initial verbs. The syntactic feature shared by the two types of sentences is the fact that no major sentence constituent (subject or object) precedes the verb.

Etter attributes particular importance to the fact that in absolute sentence-initial position the verb is accented. I, on the other hand, do not. Accent is a completely redundant demarcative feature of sentence-initial position in both Vedic and Indo-European. The equation of accentuation with importance would lead us to hypothesize a particularly important role of the verb in, say, relative clauses where, moreover, the accent is contrastive. However, it seems likely that the verb has no more inherent importance in relative clauses than elsewhere.

Another issue raised by Etter is whether, having allowed preverbs into the initial strings, we should not also allow preverb-like adverbials such as *āvíḥ* 'open, visible', *áram* 'fitting', and *āré* 'in the distance' (none of which appears in an initial string in my corpus), and, if so, where we should stop; for one finds in the Rigveda many other single-word adverbials. Note for example the following, which occur in my corpus:

(a) anukāmáṁ tarpayethām | índrāvaruṇa rāyá ā́ (1.17.3ab)
'O Indra (and) Varuṇa, rejoice to your hearts' content in the wealth here.'
(Cf. also related two-word sentence-initial adverbials in *ánu pratnásyaúkasaḥ* (1. 30.9a) and *ánu svadhā́m* (1.33.11a).)

(b) prā́ñcaṁ kṛṇoty adhvarám (1.18.8b)
'He brings the worship forward.'

(c) tredhā́ ní dadhe padám (1.22.17b)
'He sets down his foot threefold-wise.'
(Cf. dvitā́ ví vavre sanájā sánī̆le (1.62.7a)
'Once again [= 'a second time'] he has uncovered the two ancient ones sprung from the same nest.')

(d) ihá bravītu yá u tác cíketat (1.35.6d)
'Let him speak here, who has perceived that.'
(Cf. índra marutva ihá pāhi sómam (3.51.7a)
'O Indra, [thou] accompanied by the Maruts, drink here soma.')

(e) aváḥ paśyanti vítatam yáthā rájaḥ (1.83.2b)
'They look down (at the worship) extended like space.'

(f) áta ā́ yāhy adhvarám no áchā (1.101.8c)
'From there drive hither to our ceremony.'

(g) ūrdhvó hy ásthād ádhy antárikṣe (2.30.3a)
'For he stood upright in the atmosphere.'

(h) púnaḥ sám avyad vítatam váyantī (2.38.4a)
'The weaver has again covered up the extended (web).'

(i) pradakṣiṇíd abhí gṛṇanti kārávaḥ (2.43.1a)
'Facing toward the right, they give praise (like) singers.'

(j) nā́nā cakrāte sádanam yáthā véḥ (3.54.6c)
'They have made their seats in various places, like a bird.'

(k) suyúg vahanti práti vām ṛténa (3.58.2a)
'With a good team they drive up to you two in accordance with truth.'

In dealing with the question of what to allow and what not, I have, for purposes of simplification, assumed that there exists a category of preverb distinct from that of adverb in general. Although I cannot properly define 'preverb', I can characterize it, in part on the basis of idiomaticity: For any given preverb, at least some of its combinations with verbs will create lexemes which are not semantically reducible to the separate meanings of the preverb and the verb. Adverbs, on the other hand, tend to maintain a fixed semantic content incremental to that of the verb, as in each of the passages cited above. By this criterion, *āré*, said by Etter to be equivalent to *ápa ā́* in *āré mát karta rahasū́r ivā́gaḥ* (2.29.1b) 'Hold sin off far from us, like a woman secretly bearing a child (sc. keeps herself far from public view)' and *ápa dvéṣāṃsy ā́ kṛdhi* (3.16.5d) 'Hold off hostilities', would not qualify as a preverb, nor would *āvíḥ* in *āvír akar bhúvanaṃ víśvam uṣā́ḥ* (7.76.1d) 'Uṣas has made visible the whole world'. But *áram* would, as in *áram gamāma te vayám* (8.92.27c) 'We shall serve thee'. (Both of the latter passages are cited by Etter.)

Finally, Etter questions the inclusion of vocatives in the initial strings, referring to Delbrück's statement (1888:36) that 'Ein Vocativ oder Vocative, welche die Rede beginnen, gelten als vollständige Sätze' ('A vocative or vocatives which begin an utterance are equivalent to complete sentences'). I, however, see no difficulty in simply assuming that a sentence can begin with one or more vocatives. In any event, as Etter points out, the precise status of verb-initial vocatives has no practical implications for our account of verb-initial sentences, since a passage like *ádhvaryavo bháraténdrāya sómam* (2.14.1a) 'O Adhvaryus, bear soma to Indra' will

be verb-initial whether or not the vocative is considered part of the initial string. On the status of *sá*-figé, cf. note 5.

[5]I wish to emphasize that the initial strings included in Table 1 are only those found in the 'verb-initial sentences' of my corpus and do not represent the structure of initial strings within the Rigveda as a whole. For example, many Rigvedic sentences begin with a pronominal element (*sá/tá-*, ayám/imá-/á-/a-, *eṣá/etá-*, *ká-*, or a personal pronoun) or a noun which serves as a major sentence constituent. In researching this paper I collected a control group of 238 non-sentence-initial verbs (one-third the number of sentence-initial ones) drawn from the same corpus of hymns. Analyzing the sentence-initial strings of these (to which I have added sentences cited in Chapter 5 of Klein 1985), I arrive at the following schema. (N = nexal element, D = deictic, including preverb and adverbial [the latter elements patterning like deictic pronouns, as seen also by Hock 1982a:18], Neg = negative particle, Voc = vocative, Pcl = particle, *u* = particle *u*, X́ = any other accented word.)

$$(\acute{N}) \begin{pmatrix} \acute{D} \\ Ńeg \\ Voc \\ \acute{X} \end{pmatrix} \quad (Pcl) \quad \begin{pmatrix} \acute{D} \\ Pćl \end{pmatrix} \quad (u) \quad \begin{pmatrix} D \\ Pcl \end{pmatrix} \quad (Voc) \; .$$

This schema differs from that presented in Hock 1982a:18 (which is based on Rigveda maṇḍala 8, hymns 1-21) chiefly in recognizing a class of sentential nexal elements (*utá*, *áthā*, *átho*, *ádha*) which appear before any other deictic elements, as in the following passages:

(a) áthā vayám áva ít te vṛṇīmahe (1.114.9d)
'(And) therefore do we choose only thy aid.'

(b) utā́hám asmi saṁjayā́ (10.159.3c)
'And I (also) am a total conqueror.'

(c) átho vayám bhágavantaḥ syāma (1.164.40b)
'And may we (too) become fortunate.'

(d) ádha syā́ yóṣaṇā mahī́ | ... | ... ví nīyate (8.46.33)
'And this great maiden is led away.'

The recognition of such a class provides a distributional argument for the diachronic status of *sá*-figé as a nexal element. This employment of *sá* in the apparent absence of concord with a subsequent verb is often accompanied by a following deictic element, ostensibly creating a well-defined class of 'doublings' in the initial deictic position. Cf. the following:

(e) sā́smā́su dhā rayím ... (7.77.6c)
'Set wealth among us.'

(f) sá tvám no agne (a)vitéhá bodhi (3.19.5c)
'Do thou, O Agni, become an aider here for us.'

If, however, *sá* in such instances originally belonged to the class of nexal elements, then such passages are to be analyzed historically in a manner no different from those involving initial *utá*, *áthā*, etc. In this paper, I shall treat *sá* in all of its occurrences in its synchronic value as a pronoun.

The same is true of *ádha* and *áthā*. Each of these particles is built to the deictic stem *a-* with recognizable adverbial endings (*ádha* 'there', *áthā* 'in this way'). However, these forms normally function synchronically as purely nexal elements in contrast to *átaḥ*, for example, which retains

its adverbial ablatival sense 'from there'. For the proper diachronic interpretation of *sá* and *tá*, treated here as sentence particles, see Klein 1982.

[6]In this syntagm a nominative and vocative are conjoined by *ca*. The entire construction is the functional equivalent of the missing type Voc Voc *ca*. For discussions and in part varying interpretations, see Zwolanek 1971 and Klein 1981 and 1985:1.277-284.

[7]P = preverb, Voc = vocative, Nom = nominative, Neg = negative particle, V = verb. Parentheses, as usual, indicate optional elements. Braces, on the other hand, indicate primarily a subcategorization of the elements they enclose. Thus, *ádha*, *utá*, etc. represent an orthotone class of nexal elements (cf. note 5), whereas *u*, *tú*, *nú*, *ghā*, etc. are sentence particles. (*nú* appears to belong to both classes, while *ca*, which is assuredly nexal, is nevertheless excluded from the orthotone class.) Terms in the same vertical column may not simultaneously occur. It should be noted that this schema is meant to cover all initial strings attested in 'verb-initial sentences' in my corpus, but generates as well strings which do not occur, i.e., it is too powerful. However, an attempt to schematize all and only the actually occurring initial strings would make sense only if the data of the entire Rigveda were considered.

[8]Note also a sentence like *utém āhur naíṣó astîy enam* (2.12.5b) 'And they say of him, "He does not exist."' Here the structure *utém āhuḥ* to be sure does not represent a complete sentence. Nevertheless, *īm* is a proleptically topicalized object and as such represents a major syntactic constituent. By the criterion of note 4 this sentence therefore does not count as 'verb-initial'. *īm* was no doubt fronted here in order to create parallelism with the preceding pāda, which opens with a fronted relative:

yáṁ smā pṛcháṁti kúha séti ghorám (2.12.5a)
'Of which fearsome one they ask, "Where is he?"'

[9]This restriction is based on the fact that the distich or half-stanza is an important syntactic and discourse unit in the Rigveda (see especially Migron 1985). Its function is most clearly seen in stanzas of four or more pādas, especially those containing trimeter, i.e. triṣṭubh or jagatī verses, but also in dimeter anuṣṭubh stanzas. The overall internal structure of each of these stanzas is A | B || C | D, where the single verticals represent pāda-breaks and the double vertical a distich-break. These breaks had phonological implications as well, since the bards did not allow sandhi across a distich-boundary, but did allow it across a pāda-boundary. This was then mechanically extended to the three-line gāyatrī stanzas by the editors of the saṁhitā text of the Rigveda. Although such stanzas cannot be globally analyzed on syntactic grounds into units higher than the pāda (i.e., we find, with approximately equal frequency, A | B | C, AB | C, and A | BC), they are treated by the editors of the saṁhitā text for sandhi purposes as A | B || C. Owing to the absence of syntactic justification for such a treatment, we exclude all such stanzas in the count of distichs found in our corpus.

[10]The number of hymns listed in parentheses here and in the following lines becomes progressively smaller owing to the fact that one of the hymns in our corpus consists of only one stanza, one consists of three, six consist of four, nine of five, etc.

[11]The reason for this restriction becomes clear if one considers passages such as the following:

(a) bṛhaspate juṣásva no | havyáṁi viśvadevya (3.62.4ab)
'O Bṛhaspati, enjoy our oblations, O thou belonging to all the heavenly ones.'

(b) vā́yav índraś ca cetathaḥ | sutā́nām ... (1.2.5ab)
'O Vāyu and Indra, ye two take note of the pressed (somas).'

Each of these sentences is verb-initial according to our criterion, but in the first instance the verb is within the cadence of the pāda, whereas in the second it is pāda-final. The original impetus for my gathering the data represented in Table 2 was to determine whether sentence-initial position of the verb could be considered in any way as demarcative of certain independently determinable syntactic or discourse breaks in the hymns. Therefore, sentences such as these would do nothing to establish such a function. The same is true of verb-initial sentences that begin in pāda-internal position, such as the following:

(c) tásya vratáṁ rakṣatam pātám áṁhasaḥ (1.93.8c)
'Protect the vow of that one. Protect (him) from straitened circumstance.'

(d) práñcaṁ yajñáṁ cakṛma várdhatāṁ gíḥ (3.1.2a)
'We have brought forth the worship. Let the song grow!'

[12]For the term 'iterative anaphora' (repetition of a term, usually at the beginning of successive clauses or cola) and its relationship to coreferential anaphora (**índro mahā́n tám (u) stuṣe* **Indra** is great. **Him** do I praise.'), cf. Klein 1985:1.16-20, 2.17-18; and 1987.

[13]For this sense of *aratí-* ('Speichenkranz'), cf. Thieme 1949:26-35.

[14]For **bháa aṁśáve*, cf. Klein 1978:163.

[15]It should be borne in mind, however, that Biblical Hebrew is in general a verb-initial language, so that such locutions are not marked, from the perspective of the language as a whole, as are the corresponding structures in the Indo-European languages. Nevertheless, the formulaic nature of such openings and their association with the (ultimate) authoritativeness of the Deity are worth noting.

[16]For this interpretation of this passage, cf. H. P. Schmidt 1963:299.

The genitive in Pāṇini and in Epic Sanskrit

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1. The purpose of this paper is to investigate the extent to which the use of the genitive in the Epic Sanskrit[1] of the Mahābhārata (MBh.) and Rāmāyaṇa (R) agrees with the precepts of Pāṇini's grammar. To this end, I will first examine the manner in which Pāṇini accounts for the use of the genitive. This will be followed by a survey of the different syntactic uses of the genitive in Epic Sanskrit.[2] The final section will be devoted to comparing the two patterns of genitive use and to discussing the differences and similarities that can be observed.

2. Pāṇini makes a distinction between kārakas (abstract case relations between nouns or noun phrases and the verb) on one hand and vibhaktis (case inflection) on the other. The discussion of kārakas is found in sūtras 1.4.23-55. The vibhaktis are dealt with under two headings: (1) The morphology of case markers and the changes that they undergo; (2) a discussion of the conditions under which case markers are introduced. This part, which covers also the realization of kārakas by particular vibhaktis, is covered in seventy-three sūtras in book 2.3 of Pāṇini's grammar. (Kārakas are also referred to elsewhere, such as in the sections dealing with compounding and the derivation of verbal forms.)

In the section on kārakas, Pāṇini defines each kāraka and mentions some of the verbs with which a noun in that particular kāraka can cooccur. He also states alternate kārakas which are found with particular verbs. For instance, nominals referring to the locus of an action are normally classified as adhikaraṇa (which eventually is realized as the seventh or locative case). However, when the verbs *śī-* 'lie down', *sthā-* 'stand', and *ās-* 'sit' take the prefix *adhi-*, the locus of the action is classified as karman (which is realized as second/accusative or first/ nominative case, depending on the context). Similarly, the object of the verb *div-* 'gamble' is classified as karman (realized as second/accusative or first/ nominative case) or, alternatively, as karaṇa (realized as third/ instrumental case).

In the section on vibhaktis, Pāṇini assigns a case marker (vibhakti) to each kāraka. Here we get information about the cooccurrence patterns of the case forms vis-à-vis verbs, adjectives, postpositions, etc. This includes statements on alternate case forms. For instance, the kāraka 'karman' is assigned the second or accusative case; but in the case of the karman of *hu-* 'sacrifice', Pāṇini states that in the Veda it is assigned the third or instrumental case.

The sixth or genitive case is not derived from a particular kāraka, as it is basically an adnominal case expressing mainly a noun-noun relationship. However, there are several instances in which it is introduced to serve as a variant realization of various kārakas that ordinarily are denoted by other vibhaktis.

Pāṇini begins the section on the sixth or genitive case with the sūtra *ṣaṣṭhī śeṣe* 'the sixth case (is introduced) in the remainder (= elsewhere)' (2.3.50). As this rule is somewhat obscure, it has led to various interpretations. Patañjali (ad locum) interprets it as *karmādīnām avivakṣā śeṣaḥ* 'what is not to be expressed by (the kārakas) karman etc. is the remainder.' The Kāśikā states that 'in all other instances, namely if none of the cases taught in the sūtras 2.3.1-49 are available, one should use the sixth case.' However, neither of these interpretations is satisfactory.

In order to develop a clearer understanding of what may have been the motive for Pāṇini's formulation, it will be necessary to consider the details of the other cases and their corresponding kārakas.[3] For as noted earlier, the sixth or genitive case may serve as an alternative realization for (some of) these kārakas.

There are six kārakas:

apādāna '(what functions as) a fixed point from which there is a departure' (1.4.24)

saṃpradāna 'whom one intends (to reach) with an object (of an action)' (1.4.32)

karaṇa 'what most serves toward the accomplishment (of an action)' (1.4.42)

adhikaraṇa 'what is the substrate or locus (of an action)' (1.4.45)

karman 'what is most desired by the agent (in an action)' (1.4.49)

kartṛ 'who (functions) independently (in an action)' (1.4.54). (In addition, a subtype of kartṛ is specified, namely hetu, the 'instigator' of the action in causative constructions.)

Each of these kārakas is assigned a vibhakti or case marker:

Karman is (in the active) denoted by the second or accusative case endings. (2.3.2)

For karaṇa and (in the passive) for kartṛ, the third or instrumental case endings are used. (2.3.18)

Saṃpradāna is expressed by the fourth or dative case endings. (2.3.13)

Apādāna is realized by the fifth or ablative case endings. (2.3.28)

Adhikaraṇa is marked by the seventh or locative case endings. (2.3.36)

In addition, through sūtra 2.3.46, kartṛ is marked by the first or nominative case endings in the active, and karman by the same endings in the passive.

However, in addition to the kārakas, the vibhaktis can express the following other syntactic functions:

(a) Comitative (third or instrumental case, with *saha*)

(b) Purposive (fourth or dative case)

(c) Possessive/partitive (sixth/genitive and seventh/locative case)
(d) Directional (second/accusative, fourth/dative, fifth/ablative, sixth/genitive)
(e) Cause/reason (third/instrumental, fifth/ablative, sixth/genitive)
(f) Comparative (fifth/ablative, sixth/genitive, seventh/locative)
(g) Temporal/spatial (second/accusative, third/instrumental, fifth/ablative, sixth/genitive, and seventh/locative)

As can be seen, the genitive plays a role in functions (c) - (g). Under specific conditions, it can also be used to denote the following kārakas: kartṛ, karman, karaṇa, saṁpradāna, adhikaraṇa.

3. The fundamental function of the genitive in Epic Sanskrit is possessive/partitive. However, it may also be found in various other contexts. For convenience's sake, the Epic material is here classified according to categories that are compatible with Pāṇini's kāraka and vibhakti account.

I. Possessive genitive:

(a) General.

(1) pāñcālarājasya sutām (MBh. 2.62.33)
'The daughter of the King of the Pāñcālas ...'

(b) A possessive genitive occurs with verbs and verbal derivatives of *īś* and its synonyms expressing the meaning 'be master of'.

(2) kālasya ca hi mṛtyoś ca jaṅgamasthāvarasya ca īśate (MBh.5.66.13)
'He is lord of time, of death, of this universe of mobile and immobile objects.'

(3) īśo naḥ puṇyatapasāṁ prāṇānām api ceśvaraḥ (MBh.2.62.33)
'(He) is the lord of our religious and ascetic merits, the lord of even our lives.'

II. Subjective and objective genitive:

With action nouns derived by *kṛt* affixes the genitive is used in the sense of agent and object of the action denoted. Agent nouns in *tṛ* are used with the genitive of the object noun.

(a) Subjective genitive.

(4) vānarāṇāṁ ca tat karma hy ācacakṣe (R 6.129.39)
'And he narrated that action of the monkeys.'

(b) Objective genitive.

(5) pathyasya vaktā (MBh.2.57.17)
'Speaker of wholesome words ...'

(6) diśām abhijayam (MBh.2.3.11)
'Conquest of all the points ...'

III. Partitive genitive:

It expresses either the whole or the multitude from which an individual is selected. The genitive is construed with superlatives in *-iṣṭha*, comparatives in *-īyas*, and other words having similar meaning, such as *vara, pravara, sreṣṭha, variṣṭha, agrya, mukhya.*

(7) āvayor eko jyāyān (MBh.2.61.6)
'One of us two is greater (than the other).'

(8) āyudhināṁ varaḥ (R 2.53.29)
'The best among the warriors ...'

IV. Temporal genitive:

It expresses the passing of a period of time.

(9) sa cirasyātmajaṁ dṛṣṭvā (R 2.20.20)
'Having seen her son after a long time ...'

V. Causal genitive (with *hetu* 'reason, cause'):

(10) yadi rājyasya hetos tvam imāṁ vācaṁ prabhāṣase (R 2.97.17)
'If you say all this on account of the kingdom ...'

VI. Genitive with certain adverbs:

The locative, accusative, and ablative of the nouns *pramukha* 'presence', *madhya* 'amidst', *antara* 'within', *sakāśa* 'vicinity' are used with the genitive. Compare for instance the following example.

(11) kruddhasya pramukhe sthātum trasyaty api purandaraḥ (R 6.111.3)
'(Does not) Purandara himself fear to stand before (you when you are) angry?'

VII. Genitive with certain adjectives:

(a) The adjectives *abhijña-* 'knowledgeable, skillful', *ucita-* 'accustomed to', and *anucita-* 'not accustomed to' occur with the genitive.

(12) abhijño rājadharmāṇām (R 2.26.4)
'Conversant with the duties of a king ...'

(13) ucito janaḥ kleśānām (R 2.58.6)
'People accustomed to trouble ...'

(b) Similarly, adjectives like *anurūpa, sādṛśa, arha*, expressing the meaning 'worthy of' are used with the genitive. Cf. for instance example (14).

(14) anurūpaḥ sa vo nāthaḥ (R 2.2.13)
'He (is) a protector worthy of you.'

(c) The genitive is used with words of the type *sulabha, durlabha* 'easy/hard to obtain'.

(15) neyam mama mahī saumya durlabhā sāgarāmbarā (R 2.97.7)
'O friend, the sea-clad earth is not difficult to obtain for me.'

(d) Adjectives meaning 'being a match for' are used with the genitive.

(16) nūnam tribhuvanasyāpi paryāptas tvam asi prabho (R 6.69.3)
'You are indeed a match for the three worlds, O Lord.'

(e) *priya* 'dear' is used with the genitive.

(17) anyonyasya priyāḥ sarve (MBh.2.69.10)
'(You are) all dear to each other.'

VIII. Genitive with *kṛte, arthe* 'for the sake of':

(18) kuntīsutās tasya kṛte yatante (MBh.5.2.2)
'The Pāṇḍavas strive for the sake of him.'

IX. Genitive absolute:

The genitive absolute[4] is much less common than the locative absolute and more limited in its application. It generally denotes attendant circumstances. Pāṇini prescribes the genitive absolute when either 'contempt' or 'disregard' (*anādara*) is to be shown (2.3.38). Epic genitive absolutes occur under both conditions; cf. (19) and (20).

(19) tasya rājā siṁhagateḥ sakelam duryodhano bhīmasenasya harṣāt gatim svagatyānucakāra mando nirgacchatāṁ pāṇḍavānāṁ sabhāyāḥ (MBh.2.68.23)
'As the Pāṇḍavas were going away from the assembly, the foolish king Duryodhana from excess of joy mimicked playfully the leonine tread of Bhimasena.'

(20) tāṁ vadhiṣyāmi vaidehīm adyaiva tava paśyataḥ (R 6.81.26)
'I am going to slay that Vaidehi today while you are looking on.' (i.e., disregarding your presence)

X. Accusative genitive:

(a) With verbs: The object of the following verbs may appear in the genitive: *smṛ* 'remember', *ślāgh* 'praise', *day* 'have mercy', *laj* 'be ashamed', *upa-diś* 'instruct', *apa-rādh* 'offend'; *apa-kṛ* 'offend', *vi-paṇ* 'stake', *gam* 'go'. Compare for instance the following examples.

(21) smartāsi vacanasya me (MBh.5.57.25)
'You will remember my words.'

(22) akasmād dharmarājasya dharmātmeti yaśo gatam (MBh.2.34.15)
'The reputation for virtue went to Dharmaraja without any reason.'

(b) With postpositions and particles.

(23) tataḥ kirīṭī tasyānu praviveśa (MBh.5.7.7)
'And after him entered Kirīṭī.'

(24) dhig astu mama vīryasya (MBh.6.59.64)
'Fie upon my valour.'

XI. Instrumental genitive:

(a) With verbs: *tṛp* 'be satisfied', *tuṣ* 'be pleased', *nand* 'be pleased', *pūr* 'fill'. Cf. for instance (25) and (26).

(25) pradehi hāram ... yasya tuṣṭāsi (R 6.128.81)
'Give the necklace to whom you are pleased with.'

(26) nārīṇām abhipuṃāstu (MBh.2.89.17)
'Let it be filled with women.'

(b) For the agent of gerundives or past passive participles.

(27) trayāṇām api lokānām arcanīyo janārdanaḥ (MBh.2.35.9)
'Janārdana deserves to be worshipped by the three worlds.'

(c) With the postposition *saha* 'with'.

(28) priya tvaṁ saha nārīṇāṁ vānarāṇām (R 6.123.31)
'Dear one, you with the wives of the monkeys ...'

(d) With adjectives of equality, likeness, identity, and the like.

(29) na hy asya sadṛśaḥ kaścid ubhayor senayor api (MBh.5.164.8)
'Amongst the warriors of both armies there is no one who can be regarded as his peer.'

XII. Dative genitive:

(a) Verbs expressive of 'speaking'. Examples like the following are extremely common.

(30) vānarāṇām ca tat karma hy ācacakṣe 'tha mantriṇām (R 6.129.39)
'He then narrated that action of the monkeys to his ministers.'

(b) Beneficiary with *kṛ*.

(31) kṛṣṇasya kriyatām (MBh.2.1.7)
'Let it be done for Kṛṣṇa.'

(c) With verbs of giving.

(32) prayaccha pāṇḍuputrāṇām (MBh.5.127.42)
'Give to the sons of Pāṇḍu.'

(d) With verbs of emotion, sentiment, etc.

(33) samudrasya kruddhaḥ rāmaḥ (R 6.21.13)
'Rāma enraged against the ocean ...'

(e) With verbs of sending.

(34) tataḥ sampreṣayām āsa virāṭaḥ sarveṣām bhūmipālānām (MBh.5.5.13)
'Virāṭa then sent word to all the monarchs.'

(f) With verbs of saluting.

(35) apraṇamyaiva śatrūṇām (MBh.5.125.17)
'Without bowing down (yielding) to the enemies ...'

(g) With verbs of liking.

(36) prakṛtyā dharmaśīlasya rāmasyāpy arocata (R 6.19.34)
'He found favour even with the virtuous-minded Rāma due to his nature.'

(h) With verbs of promising.

(37) pratijñāto mama dvija (MBh.5.111.20)
'You have promised me, O twice-born.'

(i) With verbs of forgiving.

(38) na marṣayeyus tava rājaputrāḥ (MBh.2.60.30)
'The princes would not pardon you.'

(j) With verbs of striking, hitting.

(39) enam kṣepsyāmi vṛtrasya (MBh.5.10.37)
'I shall throw this at Vṛtra.'

(k) With verbs of producing, creating.

(40) prītim janayati mama (R 2.95.16)
'(He) creates happiness for me.'

(l) With verbs of welcome.

(41) sa tayoḥ svāgatam kṛtvā (MBh.5.7.8)
'Having welcomed them ...'

XIII. Ablative genitive:

(a) With verbs of hearing, learning from.

(42) samāgatānām aśrauṣaṁ bahūn bahumatān satām (MBh.2.35.12)
'I heard from the wise and respected people gathered there.'

(b) With verbs of being afraid of.

(43) yeṣām bibhyati devāḥ (MBh.5.100.6)
'Of whom the gods are afraid.'

(c) With verbs of suspecting.

(44) cāritrasyābhiśaṅkitāḥ (MBh.5.175.26)
'Suspecting the purity of her conduct.'

(d) With verbs of release from.

(45) na mokṣyase rāghavasya (R 6.20.25)
'You will not get release from Rāghava.'

(e) With verbs of motion from.

(46) svapuraṁ sūrasenānāṁ prayayau (MBh.2.13.43)
'He reached his country from (that of) the Sūrasenas.'

(f) With *jan* 'to be born'.

(47) tathā tu ramamāṇasya divodāsasya bhūpateḥ mādhavī janayām āsa putram (MBh.5.115.15)
'And unto King Divodāsa, thus sporting with and taking delight in her, Mādhavī bore a son.'

Employing the categories of modern case grammar,[5] the above classification of genitive uses can be rearranged as follows. (Numbers after each category refer to the examples above.)

(i) Agent (with verbal noun or kṛtya): 4, 27
(ii) Object:
  (a) With action or agent nouns: 5, 6
  (b) With verbs: 21, 44
(iii) Benefactive: 22, 31, 32, 37, 41, 47
(iv) Experiencer: 30, 40, 33, 35, 36, 38
(v) Locative: 11, 23, 34, 39, 42, 43, 45, 46
(vi) Instrumental: 25, 26, 28
(vii) Possessive: 1, 2, 3, 12
(viii) Comparative: 7, 8, 29,
(ix) Time: 9, 19, 20
(x) Cause/reason/purpose: 10, 18

4. A detailed comparison of Pāṇini's rules with the Epic facts (as summarized above) indicates that Pāṇini's grammar can take care of almost all Epic uses of the genitive. The only exception is the ablative-genitive.

The latter type is quite common in Middle Indo-Aryan, where the dative and the ablative of Sanskrit have been replaced by the genitive. It might therefore be due to Middle Indo-Aryan influence. However, note that also the Rig-Veda has an ablative-genitive; cf. example (48) below. It is therefore possible that there

was a continuity of this pattern from the earliest stages of the language to Epic and Middle Indo-Aryan times.

(48) uta smāsya tanyator iva dyor ṛghāyato abhiyujo bhayante
(RV 4.38.8)
'And from/by this thunder, like the roar of heaven, the attackers are frightened.'

The omission of this particular use of the genitive in Pāṇini's grammar raises the question as to whether this idiom was absent in his corpus (*bhāṣā*) and was current only in popular speech (from which it later entered into the Epic literature) or whether it died out for a while and was revived later. An answer to this question would require further, diachronic investigation.

NOTES

[1]For a more complete treatment of Epic syntax, see Meenakshi 1983.

[2]On the use of the genitive case in Sanskrit, see also Basu 1983, Delbrück 1888, Speijer 1886.

[3]For further discussion of Pāṇini's **kārakas**, see Ananthanaryana 1970, Cardona 1974, 1976, Kiparsky & Staal 1969.

[4]The genitive absolute is discussed in fuller detail in Oertel 1929.

[5]For discussion of case grammar and its basic assumptions and concepts, see Anderson 1971, Cook 1970, 1972, 1973(a,b), 1974, 1979, Fillmore 1966, 1968, 1975, 1977.

Single-word topicalization in Vedic Prose: A challenge to Government & Binding?*

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1. Introduction

As part of a general attempt at a detailed formal description of Vedic Prose constituent order, this paper discusses the ability of the syntactic theory known as 'the Revised Extended Standard Theory' or 'Government and Binding' (henceforth referred to as Government & Binding or GB) (cf. Chomsky 1981, 1986a) to describe and account for the phenomena involved in what throughout this paper I shall refer to as '**Topicalization**'. For the purposes of this discussion, in keeping with the transformational assumptions of GB and its crucial concept of **movement**, I will assume that Topicalization involves the movement of certain constituents out of their 'base-generated' positions in the clause to a position at the beginning of the clause. Such an operation would be an instance of GB's generic movement rule, Move α.

I will present evidence that in Vedic Prose only individual words can be topicalized, not whole phrases. However, orthodox GB tends to assume that the constraints on Move α are such that it can only operate on whole phrases (noun phrases and postpositional phrases), and therefore that only whole phrases can be moved (cf. Emonds 1980, Chomsky 1986b). The conflict between this assumption and the facts of Vedic Prose is the principal subject of this paper. The whole issue is in turn related to the general notion of 'free word order' in Sanskrit, in other early Indo-European languages such as Latin, and perhaps other languages as well.[1]

2. Basic constituent order and $\bar{X}$ theory

Sanskrit, like other early Indo-European languages, and also like most of its younger relatives in India, is generally classified as an SOV language. The verb normally comes at the end of the clause, preceded immediately (or very nearly) by its object(s), if any, while the subject occurs early in the clause, if not at the very beginning. Meanwhile, 'adverbials', whether they be simple adverbs, noun phrases with oblique or 'adverbial' case markings and roles (e.g. instrumentals and locatives), or postpositional phrases, normally appear between the subject noun phrase and the verb phrase. Cf. (1) - (4). Furthermore, nouns usually follow their modifiers in Sanskrit; cf. (5). Following Delbrück 1888 and Speyer 1886, I will assume that this is the normal, unmarked order in Sanskrit.

(1) devān avahat (BAU 1.1.2)
ACCpl. V 3sg.impf.
'gods' 'carry'
'He carried the gods.'

(2) antam karavāṇi (BAU 2.4.1)
ACCsg. V 1sg.impv.
'settlement''make'
'Let me make a settlement.'

(3) viśaḥ kṣatriyāya balim haranti (ŚB 1.3.2.15)
NOMpl. DATsg. ACCsg. V 3pl.pres.
'peasants' 'prince' 'tribute' 'bring'
'The peasants bring tribute to the prince.'

(4) saḥ tredhā ātmānam vyakuruta (BAU 1.2.3)
NOMsg. Adv. ACCsg. V 3sg.impf.
'he' 'threefold' 'self' 'divide'
'He divided himself threefold.'

(5) sarva-devatyam prokṣitam prājāpatyam (BAU 1.2.7)
'all' 'deities' 'consecrated' 'P-sacrifice'
'The Prajāpati-sacrifice, consecrated to all the gods ...'

In order to distinguish between 'lexical items' like nouns, verbs, postpositions on one hand and phrases on the other, GB makes use of the feature 'Bar level'. Single words, or lexical items, are assumed to have Bar level Ø. Phrasal units are assumed to have Bar levels greater than Ø.[2] Every phrasal unit is assumed, ultimately, to have a Ø-Bar level 'Head', which defines the category of the phrase A noun phrase is so defined because its Head is a noun, a verb phrase because its Head is a verb, and so on. Thus we can have 1- and 2-Bar level 'projections' of lexical categories: $\bar{N}$, $\bar{\bar{N}}$, $\bar{V}$, $\bar{\bar{V}}$, etc. Maximal projections (those of Bar level 2) of lexical categories can also be referred to simply as NP, VP, PP, etc. Throughout this paper, I will assumr the following equivalences among node labels:[3]

(a) $\bar{\bar{V}}$ = VP (b) $\bar{\bar{N}}$ = NP
(c) $\bar{S}$ = CP (d) S = IP = $\bar{I}$

In other words, the category 'S' is assumed to be a maximal projection of the category **Infl** (abbreviated 'I'), which is assumed to dominate all morpho-syntactic information about verbal inflection and agreement; the category $\bar{S}$ (or CP) is assumed in a similar fashion to be a phrasal projection of the category COMP, which is assumed to dominate all clausal complementizers and connectors. This usage conforms to the usage in the most recent GB literature (cf. for example Chomsky 1986b).

In addition to its Head, a phrasal unit may include other phrases which are 'complements' to the Head.[4] Thus, NPs can be included within VPs and PPs as 'objects' of verbs and postpositions, respectively. And genitive NPs and adjective phrases (APs) can be included within NPs as 'modifiers'. Different lexical items, especially verbs, can 'subcategorize' for different types of complements.

The distinction between transitive and intransitive verbs is a case in point. By virtue of this subcategorization, different verbs and different adpositions can be said to assign different semantic roles to their complements. These roles are in GB called 'θ-roles', and the power to assign θ-roles, or 'θ-mark', is an important part of what is known in the theory as 'government', and it is by virtue of this government that NPs can get assigned Case.[5] I will discuss the consequences of Head-movement on government.

Getting back to our overview of Sanskrit syntax, it is clear from what I assume about normal, unmarked order in Sanskrit that the verb, the noun, and the postposition all come at the ends of the phrases they head, and that these phrases can therefore be defined, in GB terms, as 'Head-final'. Furthermore, if, as orthodox GB assumes, the verb phrase is closely associated with the category **Infl**, forming with it the category $\bar{\text{I}}$, which is assumed to be the real head of the clause, then it is reasonable to assume that in Sanskrit the clause is also Head-final.[6]

However, it seems to be impossible to analyze Sanskrit, as one might want to do for, say, Japanese, as a purely Head-final language. The category $\bar{\text{S}}$ (CP) is assumed to be headed by the category COMP, which in English covers words like 'if', 'that', 'then', or 'however', when they introduce clauses. The Sanskrit equivalents of these words appear to be words like *atha*, *tathā*, or *tataḥ*, which normally occur before the appended clause, as in English, rather than after, as in Japanese.[7] We therefore must regard Sanskrit phrase structure as of mixed type.[8]

3. Movement

3.1. The four levels and Move-α: GB maintains that the syntax of any human language can be analyzed into four discrete levels related in an antecedent-consequent fashion. The first, most basic level is 'Deep Structure' (D-Structure or DS). The second, 'Shallow Structure' (S-Structure or SS), is assumed to be 'derived' from DS. SS in turn is the unique and common point of derivation for Logical Form (LF) and Phonological Form (PF), the former being the interface between syntax and semantics, the latter the interface between syntax and phonology.

The levels are related to each other by the 'transformational component' of the theory, conceived as the movement of constituents from the positions they hold at one level to the positions they occupy at the next. These movement operations, summed up in the generic transformation 'Move-α', i.e., 'Move anything anywhere', are assumed to apply freely in the 'twilight zone' between levels, about which, presumably, nothing can be said except that movement takes place.

3.2. Sentential particles and PF movement: It is necessary to digress a little so as to describe a class of syntactic phenomena which I will draw on throughout this paper. I am referring to a type of constituent labelled 'sentential particle' or 'PTCL'.[9] Words belonging to this category can occur either singly or in strings of several members. In multi-particle strings, the internal or-

dering appears to be controlled by considerations both phonological and lexical. See Hock 1982a for details.

The presence of sentential particles is not obligatory, but they occur often in both verse and prose. While there are three particles, *íva*, *evá*, and *khálu*, which are associated with phrases, and two conjunctive particles *ca* 'and' and *vā* 'or', which may be either clausal or phrasal, the overwhelming majority of these particles are clausal in scope.[10] In fact, part of their function seems to be to serve as markers of the clause boundary.

A few of these sentential particles have definite syntactic/semantic functions which can be recognized even in English translation. For instance, *ca*, *vā*, and *u* are coordinate conjunctions, while *hí* is associated with subordinate clauses. These thereby resemble COMP words, i.e. words like English 'for', 'unless', 'because', 'that'. It therefore seems reasonable to suppose that they are generated in COMP position by the Base Component of Sanskrit. For the sake of simplicity and because there seems to be no reason to do otherwise, I propose that all particles with clausal scope are generated in COMP and are located in that position at D-Structure.

However, in the superficial form of the sentence, particles always occur to the immediate right of the first word in the clause.[11]

(6) tắm tú naḥ ắgatām pratiprábrūtāt
'her' PTCL 'us' 'having come' 'announce'
(ŚB 3.2.1.22)
'Announce her to us as having come (= when she has come).'

(6') *tú tắm naḥ ắgatām pratiprábrūtāt.
PTCL 'her' ...

(7) prajắpatiḥ khálu vaí tásya veda (TS 2.1.6.5)
PTCL 'that' 'knows'
'Prajāpati knows about that.'

(7') *khálu vaí prajắpatiḥ tásya veda.
PTCL ...

(8) té ha devắḥ ūcuḥ bṛhaspátim āṅgirasám
'those' PTCL 'gods' 'spoke' 'B. A.'
(ŚB 1.2.5.15)
'Those gods spoke to Bṛhaspati Āṅgiras.'

(8') *té devắḥ ha ūcuḥ bṛhaspátim āṅgirasám
'those' 'gods' PTCLE ...

Apparent counterexamples to the claim that sentential particles always occur immediately after the first word in the clause can be profitably grouped under the following categories:

(a) Clauses in which sentential particles occur in initial position;
(b) Clauses in which sentential particles are separated from the left clause boundary by more than two words;
(c) Clauses in which sentential particles are separated from the left clause boundary by exactly two words.

Categories (a) and (b) are found, as far as I know, only in the Ṛg-Veda, and could perhaps be used to support an argument that, although the sentential particles cannot all be described synchronically as clitics (cf. note 11), they may have evolved from clitic elements, which would account for their moving into second position. (However, the lack of accentual variation remains problematic.) Category (a) involves primarily the words *nū́* and *evā́*, as in examples (9) and (10) below. These are apparently clause-initial, long-vowel-final variants of the second-position particles *nú* and *evá* (note that accent shows no variation).[12] In such cases, *nū́* customarily is glossed as 'now' and *evā́* as 'thus'.[13] Category (b) may be said to involve cases in which particles which in Vedic Prose have clausal scope are exercising scope over narrower domains. Note in particular examples (11) and (12), in which the particle *hí* seems to have scope over the verb (or V̄). In example (13), the same particle seems to behave almost as a conjunction.

(9) nū́ rodasī́ áhinā budhnyèna | stuvītá devī́ ápyebhiḥ iṣṭaíḥ
VOCdu. INSTsg. V 3sg.opt. VOCdu.INSTpl.
'now' 'heaven & earth' A. B. 'praise' 'goddess"water deities'
(RV 4.55.6)
'Now he should praise you, Heaven and Earth, together with Ahi Budhnya, you two goddesses together with the water deities.'

(10) evā́ naḥ índraḥ maghávā virapśī́ | kárat satyā́ carṣaṇidhṛ́t anarvā́
DAT NOM NOM NOM V 3sg ACC NOM NOM
subj. aor.
'thus"us' I. 'munif.' 'exuber."make"true' 'irresistible' 'protecting people'
(RV 4.17.20)
'Thus will Indra the munificent, the exuberant, the true, the protector of people, the irresistible, make (it) true for us.'

(11) tribhíḥ pavítraiḥ ápupot hí arkám (RV 3.36.8)
INST INST V 3sg.aor. PTCL ACC
'three' 'sieves' 'sift' 'song'
'With three sieves he has sifted the song.'

(12) máhi tvíṣīmat sukṛ́taḥ ví hí khyán
ACC ACC NOM PrV PTCL V (RV 3.31.12)
'great' 'bright' 'good-doers' 'see'
'The good-doers perceived a great bright (seat).'

(13) mahé kṣatrā́ya śávase hí jajñé (RV 7.28.3)
DAT DAT DAT PTCL V 3sg.perf.
'great' 'dominion' 'power' 'born'
'He is born to great dominion, to power.'

Clauses falling into category (c), in which exactly two words precede or appear to precede the sentential particle, can be accounted for in two different ways. In some cases, as in examples (14) and (15), the material preceding the particle, while morphologically complex, is treated by the grammar as one word,

as is evident from the fact that it includes only one accented syllable. Those clauses in category (c) which cannot be accounted for in this fashion are much more interesting. In these, there are clearly two words preceding the particle, the first of which is often *atha*, *tataḥ*, or an inflected form of the pronominal root *tad*. See for instance examples (16) - (18). Note, however, that these clauses always occur in contexts where they are clearly following previous discussion. (Consider the anaphoric force of *tát* in (17) and *evám* in (18), for instance.) I propose that *atha*, *tataḥ*, etc. are functioning as clause-connectors in these particular cases.[14] As such, they are functioning like English *and*, *but*, *therefore*, etc., which in GB are usually assigned to COMP. COMP is assumed to be the Head of S and outside S. To the extent that the formal entity S is equated with the informal notion 'clause', therefore, COMP is not part of the clause. Therefore the first words in examples like (16) - (18) do not count as the first words of their clauses. As a consequence, the particle(s) in each do in fact follow the first word in the clause.[15]

(14) itáḥ(-)pradānāt hí devā́ḥ úpa-jīvanti (ŚB 1.2.5.24)
ABL PTCL NOM V 3pl.pres.
'here' 'offered' 'gods' 'live on'
= 'offered from here'
'For the gods live on what is offered from here'

(15) evám(-)rūpam hí sáḥ téna áśanam ávayat
ACC PTCL NOM INST ACC V 3sg.impf.
'thus' 'form' 'he' 'that' 'food' 'consume'
= 'of that likeness'
(ŚB 1.6.3.5)
'The food (which) he consumed with that (mouth) (was) like that.'

(16) átha kím u yáḥ devéṣu ánaśnatsu pū́rvaḥ aśnīyā́t
COMP IntPr PTCL RelPr LOC LOC Adj. V 3sg.opt.
'now' 'gods' 'not eating' 'first' 'eat'
(ŚB 1.1.1.8)
'But what if he should eat first, with the gods not eating = having eaten?'

(17) sáḥ yáthā iva ha tát agnéḥ bhávati
COMP RelPr PTCL NOM GEN V 3sg.pres.
'Now' 'like' 'that' 'fire' 'be'
(ŚB 1.1.1.21)
'Now, that (feud) is as if for the fire.'

(18) sáḥ yátra ha evám ṛtvíjaḥ saṁvidānā́ḥ yajñéna cáranti
COMP RelPr PTCL NOM pl. INSTsg. V3pl.pres.
'so' 'where' 'thus"priests"agreeing 'sacrifice"perform'
together'
(ŚB 1.5.2.15)
'So where the priests, agreeing together, thus perform the sacrifice...'

However, as argued above, the sentential particles themselves logically belong in COMP. This suggests that at DS, strings like the ones in (16) - (18) have several words in COMP, a pronominal-type word (which remains there) and one or more particles (for which see below). This implies, first of all, that the 'Doubly-Filled COMP Filter', a prohibition against more than one word in COMP, which is supposed to apply for English, does not apply to Vedic Sanskrit.

It also implies that, while pronominal-type COMP words like *atha*, *tataḥ*, and *tad* may remain in COMP throughout the derivation of a Vedic sentence, sentential particles, which are also generated in COMP at DS, obligatorily move right into the sister of COMP, to a position immediately following the first word therein.[16] Since the positioning of sentential particles within the clause and their ordering amongst themselves (when there are more than one; cf. Hock 1982a) seems to be sensitive to phonological considerations such as presence or absence of accent, I propose that this movement is controlled by a rule or principle applying in the PF component.

The fact that particles associate themselves with the first word of the constituent within which they take their place can be attributed to a phonological parameter of the grammar. In some languages similar processes single out the first phrase, in some everything that has been fronted, and in yet others the first phonological phrase, the first morpheme, or even the first syllable (cf. Hock 1985a, Radanović-Kocić 1988, Tegey 1977). At least some of these notions either can be defined only phonologically or at least are accessible to phonological processes. This is a further reason for regarding the placing of particles in Sanskrit as largely, if not exclusively, a phonological phenomenon and therefore residing in PF.

Note further that the insertion of sentential particles into the clause after its first word can, without any other movement necessarily taking place, result in a discontinuous constituent; example (8), repeated below, is a case in point. The words *té devā́ḥ* by themselves logically make up a single constituent, the subject NP of the clause. The insertion of *ha*, itself having nothing to do with the subject NP, in second position separates the two components of the NP from each other. The ability of sentential particles thus to disrupt what would otherwise be ordinary, straightforward syntactic constituents is further evidence that particle placement is not a syntactic operation, in the strict sense of the word 'syntactic', and that therefore it should be associated with the post-syntactic level of PF.[17]

(8)	té	ha	devā́ḥ	ūcuḥ	bṛhaspátim āṅgirasám
	'those'	PTCL	'gods'	'spoke'	'B. A.'
	(ŚB 1.2.5.15)				
	'Those gods spoke to Bṛhaspati Āṅgiras.'				

3.3. Constraints on movement. As noted above, in GB, movement — the transformation 'Move-α' — can theoretically operate on anything, between any two levels. However, such movement does not take place surreptitiously. A moved constituent always leaves a 'trace' (indicated in this paper by the letter *t*) in the position from which it was moved, and is connected to that trace by a

'chain'. (I will say more about traces and chains later.) And the consequences of movement are subject to various constraints, applying at one level or another, that prevent the generation of ungrammatical or unacceptable structures.

3.3.1. Topicalization. Orthodox GB tends to assume that Move-α is constrained such that it can only operate on maximal projections, and therefore that only whole phrases can be moved.[18] However, in Vedic Prose, Topicalization operates on individual words, not on phrases. Consider the following examples.

(19) [TOP[N ṛ̥ṣibhyaḥ]$_i$] ca evá enam etát [NP t$_i$ devébhyaḥ ca]
DAT pl. PTCL Acc. DAT pl.
'Ṛsis' 'him' 'thus' 'gods' '&'
ní-vedayati (ŚB 1.4.2.3)
V 3sg.pres.
'introduce'
'He thus introduces him both to the Ṛṣis and to the gods.'

(19') *[ṛ̥ṣibhyaḥ ca evá devébhyaḥ ca]$_i$ enam etát t$_i$ ní-vedayati[19]
Ṛsis' 'gods' '&' 'him' 'thus' ...

(20) [TOP[A sárvam]$_i$] hí eṣáḥ [NP t$_i$ pāpmā́nam] tarati
ACC sg. PTCL NOM sg. ACC sg. V3sg.pres.
'every' 'he' 'evil' 'overcome'
(ŚB 1.4.2.12)
'For he overcomes every evil.'

(20') *[sárvam hí pāpmā́nam]$_i$ eṣáḥ t$_i$ tarati
ACC sg. PTCL ACC sg ...

(21) [TOP[A svargám]$_i$] evá téna [NP t$_i$ lokám] sám-āśnuvata
ACC sg. PTCL INST sg. ACC sg. V 3pl. impf.
'heavenly' 'that' 'world' 'attain'
(ŚB 1.6.1.10)
'By (means of) that they attained the heavenly world.'

(21') *[svargám evá lokám]$_i$ téna t$_i$ sám-āśnuvata

(22) [TOP[A dviṣántam]$_i$] ha asya$_j$ tát [NP t$_j$ t$_i$ bhrā́tṛvyam]
ACC sg. PTCL GENsg. NOMneut. ACC sg.
'hateful' 'his' 'that' 'foe'
abhi-áti-ricyate (ŚB 1.9.1.18)
V 3sg. pres.
'remain for'
'That remains for his hateful foe.'

(22') *[dviṣántam ha asya bhrā́tṛvyam]$_i$ tát t$_i$ abhi-áti-ricyate

(23) [TOP[N sárvam]$_i$] u evá eṣáḥ etát [NP sapátnānām t$_i$] sám-vṛṅkte
ACC sg. PTCL NOM sg. GEN pl. V 3sg. pres.
'all' 'he' 'thus' 'enemies' 'appropriate'
(ŚB 1.7.2.24)
'He thus appropriates his enemies' all = all his enemies' goods.'

(23') * [sapátnānām u evá sárvam]$_i$ eṣáḥ etát t$_i$ sám-vṛṅkte

(24) [TOP [V ádanti]$_i$] ha sma vaí etásya$_j$ [VP [NP t$_j$ purắnnam] t$_i$]
V 3pl.pres. P T C L Pro-GEN ACC
'eat' 'his' 'prev. food'
(KS 23.2)
'They eat his previous food.'

(24') *[purắnnam ha sma vaí adanti]$_i$] etásya t$_i$.

(25) [COMP tát] [TOP [A prathamena]$_i$] evá etát [VP [NP t$_i$ karmaṇā]
INST PTCL INST
'hence' 'first' 'now' 'deed'
[NP sárvam] apnoti] (ŚB 1.1.1.14)
ACC V 3sg.pres.
'universe' 'obtain'
'Hence by (his) first deed he now obtains the universe'

(25') *[COMP tát] [TOP [NPprathamena evá karmaṇā]$_i$] [VP etát$_j$ t$_i$
[NP t$_j$ sárvam] āpnoti]

(26) [TOP[V indhé]$_i$] ha vaí -etát adhvaryúḥ idhména [VP agním t$_i$]
V 3sg.pres. PTCL NOM sg. INST sg. ACC sg.
'ignite' 'now' 'Adhvaryu' 'kindling' 'fire'
(ŚB 1.3.5.1)
'Now the Adhvaryu lights the fire with the kindling.'

(26') *[VP agním ha vaí indhe]$_i$ etát adhvaryúḥ idhména t$_i$

How to account for this? Is Topicalization a transformation wholly different from other instances of Move α? Or is there some special condition, operative exclusively on structures such as these, that restricts the nature of the constituents affected by Move α in Topicalization?

If, as seems to be the case, Topicalization in Vedic-Prose Sanskrit can operate on single words, and if, as I claim, Topicalization is an instance of Move α, then obviously in Vedic Sanskrit, Move α must be allowed to operate on single words as well as on phrases. It is therefore necessary to ask why the Standard Theory, especially during the development of the more modern restrained versions, has tended to assume that only maximal projections can be moved by Move α.

3.3.1.1. Structure preservation. One reason suggested for this assumption is the Structure Preservation Hypothesis (SPH), one of the strongest and most basic constraints in GB, first proposed in Emonds 1976. According to the SPH, the basic structure generated at DS must be preserved throughout all subsequent transformations; no element of structure may be either created or destroyed. This means that in order for a constituent to move out of one position into another, there must be an empty node in the new position to receive it.[20]

The argument that the SPH prevents the movement of single words, as opposed to phrases, presupposes that all base-generated empty nodes are phrasal (Bar level=2) in nature. But this does not seem to be a necessary assumption, and in view of the Sanskrit data it appears to be counterproductive as a linguistic universal. If we can define the TOP node in Sanskrit as inherently Bar level Ø,

this would account admirably for the fact that it can dominate a Ø-level constituent, i.e. a single word.

3.3.1.2. Head movement and Case assignment. Another reason, given in Chomsky 1986a, for believing that single words cannot be moved out of their phrases applies specifically to Heads. Chomsky argues that a moved Head can no longer govern its complements. As a consequence, a Verb moved out of its VP would be unable to assign Case to its object.

It would be nice if Topicalization in Sanskrit were likely to front out of any particular phrase that word which in D-Structure appears first (leftmost) in that phrase; for since Sanskrit is basically a head-final language, that word is much more likely to be a complement than a head. However, examples (27) - (29) are all examples of topicalized Heads.

(27) [TOP[N manaḥ]$_i$] ha vai devāḥ [VP [NP manuṣyasya t_i] jānanti]
ACC sg. PTCL NOM pl. GEN sg. V3pl.pres
'mind' 'gods' 'human' 'know'
(ŚB1.1.1.7)
'The gods know the mind of man.'

(28) [TOP ádanti$_i$] ha sma vaí etásya [VP purāṇnam t_i]
V 3pl.pres P T C L Pro-GEN ACC
'eat' 'his' 'previous food'
(KS 23.2)
'They eat his previous food.'

(29) [TOP[V indhé]$_i$] ha vaí etát adhvaryúḥ idhména [VP agnín t_i]
V 3sg.pres. PTCL NOM sg. INST sg. ACC sg.
'ignite' 'now''Adhvaryu''kindling' 'fire'
(ŚB 1.3.5.1)
'Now the Adhvaryu lights the fire with the kindling.'

So we are, in fact, faced with the problem Chomsky has rhetorically raised: How do the complements in such phrases get their Case? It is usually assumed that Case is assigned at S-Structure, after all syntactic movement has taken place. How does a moved Head assign Case to its complement?

3.3.1.2.1. Case assignment by structure. One possibility is that the complement is assigned Case, not by the Head itself, but by the structure in which the complement resides. In other words, an NP node dominated by $\bar{V}$ would be assigned object Case automatically, whether the verb is actually there or not.

However, this hypothesis fails to deal with the fact that in Sanskrit, a language with a rich morphological case system, a transitive verb does not necessarily assign Accusative case to its object. There are certain verbs which are syntactically transitive, but whose objects are marked Dative, Genitive, or Locative. Similar phenomena occur in other Indo-European languages, both past and present, with rich morphological case systems.[21]

Yet it is assumed that all direct objects are generated in the same configuration, as NP dominated by VP. If object NPs get their Case from this structure, then

all would get the same Case: The above-described configuration is unable to distinguish between 'normal' circumstances in which the direct object gets 'normal' object Case (i.e. Accusative) and the 'exceptional' circumstances in which it gets something else. Nor does this distinction depend upon the nature of the object. Exceptional Case marking is a lexical feature of certain verbs. Therefore, for the complements of such verbs to get their exceptional Case marking, it is necessary to identify within the VP a specific verb as triggering that marking. If the verb has been moved out of VP (as the above discussion indicates is possible), then there must be some mechanism enabling it to trigger Case-marking on its object from a distance. Within the GB framework as customarily formulated there is no such mechanism.

3.3.1.2.2. Head movement as PF movement. Another possibility is that Topicalization is entirely done at PF. In which case, when Case is assigned at SS the Head is still where it belongs and can do its duty by its complements. But while conveniently solving this one problem, this hypothesis doesn't explain how TOP can be a host for PTCL. Clearly, when the TOP node is present and filled, sentential particles take it as 'host'. Since the particles are assumed to take up this residence at PF, this implies that the TOP node must already be filled by the time this stage is reached.

Recall that as noted above, movement can only occur in the 'twilight zones' between the four levels of structure: DS, SS, PF, and LF. Therefore, the expressions 'movement at SS' or 'movement at PF' really mean 'movement **that has taken place by the time** SS (or PF) **is reached** in the process of derivation'. It is further assumed that movement operations are inherently unordered amongst themselves. Therefore, the only way to assure that one movement operation — such as Topicalization — can precede another — such as particle movement — is by associating it with an earlier stage in the derivation.

Furthermore, as argued in Huang 1982, within orthodox GB the assumption that Topicalization is a PF phenomenon doesn't account for its semantic repercussions, since these presumably have to be derived from LF, and there is no direct communication between PF and LF.

3.3.1.2.3. Chains and case-assigning power. A third hypothesis, which seems much more promising, is that a moved Head can pass its Case-assigning power down its chain to its original position. It is assumed that Case itself, and θ-role assignment, can be passed along chains.[22] It is therefore legitimate to ask why Case-assigning power should not be similarly passed along. I know of no theoretical reason that it cannot be done.[23] Probably the ability to pass Case-assignment or Case-assigning power along a chain should be parameterized.

If this hypothesis is correct, then the ability to pass Case-assignment along a chain is probably one of the main reasons Sanskrit can be a free word-order language. Languages like English probably lack this freedom in word order precisely because they lack that ability. Universal Grammar may offer a selectional range of things that can be passed along chains.

So it would appear that, whatever the common assumptions of GB, single-word movement must in fact be possible in some languages, and furthermore, that this fact can be adequately described, and perhaps even explained, within the theory. We shall now address the interaction between Topicalization and Scrambling, after a quick look at the relevant theoretical concepts.

3.3.2. Scrambling, Topicalization, and the ECP

3.3.2.1. *C*-command. The structural relation called '*c*-command' is an important part of GB, and will also enter into our discussion. *C*-command is a relation between two nodes in a tree-diagram. Cf. Figure 1. The definition is:

> A node α *c*-commands a node β if and only if
> neither dominates the other **but**
> the first branching node dominating α also dominates β.

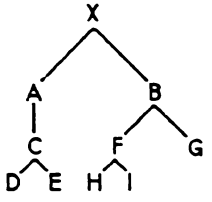


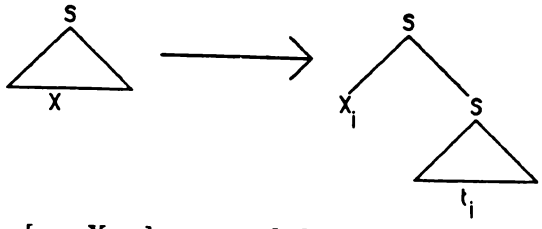
FIGURE 1

In Figure 1, nodes A and B *c*-command each other, and each *c*-commands everything dominated by the other. Therefore, node A *c*-commands nodes F, G, H, and I; however, node A is not *c*-commanded by any of these. Node C *c*-commands everything *c*-commanded by node A because A is a non-branching node. But nodes D and E *c*-command only each other.

3.3.2.2. Binding of traces. It is a very important tenet of the theory that a trace left by the movement of any constituent must be *c*-commanded by that constituent (called its 'antecedent') from its new position. This is one of the requirements of the 'Empty Category Principle' (ECP).

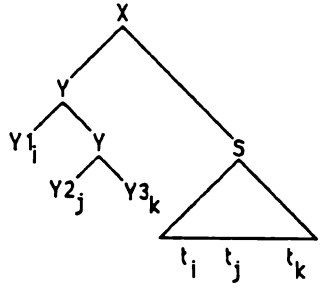
Note that this understanding means that the word in TOP (or equivalently the TOP node itself) must be able to *c*-command its own trace, i.e., the position it occupied in DS. If we assume that TOP is a sister to S, this condition is met quite simply: TOP will by definition *c*-command S, and therefore anything dominated by S, including the trace of the topicalized constituent.[24]

3.3.2.3. Scrambling. For the purposes of this paper, I will assume with Saito 1985 that 'scrambling', in a free constituent-order language like Sanskrit, involves a syntactic adjunction process. Adjunction is a movement process whereby a given node is copied as its own mother and the moved constituent is dominated by the copy. Cf. Figure 2.



$[_S \ldots X \ldots] \rightarrow [_S [_X]_i$
$[_S \ldots t_i \ldots]]$[25]

FIGURE 2



$[_X [_Y [_{Y1}]_i \quad [_S \ldots t_i \ldots t_j \ldots t_k \ldots]]$[25]
$[_Y [_{Y2}]_j [_Y [_{Y3}]_k]]]$

FIGURE 3

Appearances to the contrary, adjunction is not considered a violation of the SPH (for which see 3.3.1.1. above). This is because no 'new' node is being created; a node already present is merely being 'copied'. It should also be noted that adjunction structures are considered to be transparent to the *c*-command relation. For example, in Figure 3, in which three different constituents (Y1, Y2, and Y3) have been adjoined to each other under a constituent X, all three Y's actually *c*-command S, and therefore their own traces.

Although scrambling, if viewed as an adjunction operation, is not a violation of the SPH, and 'embedded' scrambling can still meet the *c*-command requirement, scrambled constituents are not in any way exempt from the *c*-command or any other ECP requirement. As an example, let us consider (30) (next page), diagrammed in Figure 4.

It must be granted that this analysis seems intuitively clumsy, in that it requires two movements to account for the fact that, superficially, the head of the subject NP is between the verb and its complement. An intuitively more satisfactory

analysis might be as shown in Figure 5. (See also my other contribution to this volume.)

(30)

asya	puruṣasya	mṛtasya	agnim	vāk	api-eti
GEN	GEN	GEN	ACC	NOM	V 3sg.pres.
'this'	'person'	'dead'	'fire'	'speech'	'go'

(BAU 3.2.13)
'This dead person's speech goes into the fire.'

[S[NP asya puruṣasya mṛtasya]$_i$
[S[NP agnim]$_j$
[S[NP t$_i$ vāk] [VP t$_j$ [V api-eti]]]]]

FIGURE 4

[S [NP asya puruṣasya mṛtasya] t$_i$] [VP [NP agnim] [N vāk]$_i$ [V api-eti]]

FIGURE 5

However, within the GB framework as currently constituted this analysis is impossible. Since the first branching node above *vāk* is the VP node, *vāk* would *c*-command only the contents of the VP. Crucially, it could not *c*-command its own trace. Since the ECP requires a trace to be *c*-commanded by its antecedent, this structure would therefore be rejected as a violation of the ECP.

3.3.2.4. Scrambling does not interfere with Topicalization. Consider example (31). The relative order of the subject *varuṇaḥ* and the object *prajāḥ* in this sentence strongly suggests that scrambling has taken place: The object has been scrambled to the left of the subject. According to our previously-stated assumptions, this means that the object has been adjoined to S. However, note that the negative adverb *na*, which has presumably been Topicalized, is still to its left. (The other intervening words will be discussed shortly.) This means that the adjunction site actually occupied by *prajāḥ* is still to the right of TOP.

(31)

na	aha nu eva	etasya	tathā	prajāḥ	varuṇaḥ	gṛhṇāti
Adv.	P T C L	Pro-GEN	Adv.	ACCpl.	NOM	V3sg.pres.
'not'		'his'	'thus'	'offspring'		'grab'

(ŚB 2.5.2.4)
'Varuṇa does not thus grab his offspring.'

This is my main reason for believing that TOP is a sister, not a daughter, of S. Remember that the SPH requires us to assume that TOP is a base-generated position, but that adjunction sites are not. Therefore, if TOP were base-generated as a daughter of S (Figure 6) and some constituent were then moved and adjoined to S (Figure 7), then that constituent would be to the left of TOP, which appears never to happen. On the other hand, if TOP were base-generated as a sister of S (Figure 8) and some constituent were moved and adjoined to S

(Figure 9), then that constituent would still be to the right of TOP, which is what always appears to happen. Therefore, I conclude that TOP is a sister of S.

$[_S\ [_{TOP}\ ]\ X\ Y\ Z]$

FIGURE 6

$[_S\ Y_i$
$[_S\ [_{TOP}\ ]\ X\ t_i\ Z]]$

FIGURE 7

$[_{TOP}\ ]\ [_S\ X\ Y\ Z]$

FIGURE 8

$[_{TOP}\ ]\ [_S\ Y_i$
$[_S\ X\ t_i\ Z]]$

FIGURE 9

3.4. The ECP and the clause-boundedness of Topicalization. All the evidence I have so far been able to collect indicates that Topicalization is clause-bound. This suggests that (from a GB point of view) it is impossible for a word, having moved to TOP, to move out of TOP to some higher position in e.g. a matrix clause. It is desirable that the grammar account for this. Usually, the ECP is invoked to account for such restrictions.

In the previous section, some of the requirements of the ECP have been mentioned, namely the binding of traces. The ECP also requires that traces be 'governed' in either of two fashions: 'proper government' and 'antecedent government'. Antecedent government is easy to understand: A trace is antecedent-governed if its own antecedent governs it.[26] Proper government is a function of Heads of phrases and corresponds intuitively to more traditional notions of government: Verbs govern their objects, adpositions govern their complements, etc. In general, a Head governs anything for which it 'subcategorizes' as a complement. And a trace in the position of such a complement is said to be properly governed, whether the governing Head has anything to do with its antecedent or not.

Now, there is no reason to believe that the TOP node is subcategorized by anything. Therefore, it cannot be properly governed. If the grammar were such that antecedent government of the TOP node were also impossible, i.e., that a word moved out of TOP into a higher position would be unable to govern (its own trace in) TOP from that higher position, then the necessary conclusion would be that a trace in TOP would be ungoverned, and therefore in violation of the ECP. And this would account for the clause-boundedness of Topicalization.

According to Chomsky's 'Barriers' theory (1986b), antecedent government can be 'blocked' by a 'Barrier', i.e. a 2-Bar level mother that is not subcategorized by anything. S cannot perform this function, since, in Sanskrit as in English, S is presumably subcategorized by verbs meaning things like 'tell'.[27] Therefore, I believe that S cannot be the immediate mother of TOP, since if it were, it would theoretically allow for TOP to be antecedent-governed. I presented in the preceding section an argument that S is the sister, not the mother, of TOP; S thus cannot serve as a Barrier to the antecedent government of TOP.[28] Therefore, I feel that there must be a separate, 2-Bar level category, mother of TOP, to serve as Barrier to movement out of TOP. I will call this category T^{max}, and introduce it as follows:

$CP \rightarrow COMP\ T^{max}$

$T^{max} \rightarrow TOP\ S$

4. Demonstrative pronominals

Although both scrambling and Topicalization in Sanskrit appear to be optional, there seem to be some constituents that almost obligatorily move leftwards out of their mothers. These have been called 'deictics' (cf. Gonda 1952:9, Hock 1982a), but note that they do not include so-called 'locational deictics' — words meaning 'this here' or 'that one over there', for instance — which may scramble or topicalize as freely as other consituents, not in the obligatory way that these entities do. These obligatorily fronted elements are all pronominal in character. Some are interrogative pronominals (forms of the root *kim*); some are relative pronominals (forms of the root *yad*). The rest are a variety of words which, if not synchronic forms of the demonstrative roots *tad* or *etad*, are etymologically related to them (*tatra*, for example). Hereafter I will label this last group 'Demonstrative Pronominals' and focus on them. It should be borne in mind, however, that what I am saying about Demonstrative Pronominals also goes for Interrogative and Relative Pronominals.[29]

I suggest that Demonstrative Pronominals are lexically marked for a binary feature 'Demonstrative Pronominal' (which I shall abbreviate as 'DemPr'), for which they take a positive value. This will enable me to describe their behavior formally.

As indicated above, the fronting of Demonstrative Pronominals within the clause appears to be obligatory, or at least very nearly obligatory, in Vedic Prose. See examples (32) - (34).[30] Note in example (35) that the two clauses in boldface, which are in terms of content exactly parallel to each other, are not structurally parallel because of the necessity of fronting *tám*, a Demonstrative Pronominal, while *agnim*, a fully referential noun, is not obligatorily fronted.

(32)

tádā	etébhyaḥ	evá	etát	devátābhyaḥ	níhnute
Adv	DemPr	PTCL	DemPr		V
	DATpl.			DATpl.	3sg.pres.
'therefore'	'these'		'now'	'deities'	'propitiate'

(ŚB 1.5.1.16)

'Therefore he now propitiates these deities.'

(33) evám evá eṣáḥ etám$_i$ pāpmáne dviṣaté bhrā́tṛvyāya t$_i$
Adv PTCL DemPr DATsg. DATsg. DATsg.
DemPr ACCsg.
NOMsg.
'thus' 'he' 'this' 'evil' 'spiteful' 'foe'
vájram út-yachati (ŚB 1.2.4.3)
ACCsg. V 3sg.pres.
'thunderbolt' 'raise'
'Thus he raises this thunderbolt against the evil, spiteful foe.'

(33') ?*evám evá eṣáḥ pāpmáne dviṣaté bhrā́tṛvyāya etám vájram út-yachati

(34) etā́m$_i$ u evá eṣáḥ$_j$ etásmai$_k$ t$_j$ víṣṇuḥ yajñáḥ t$_k$ t$_i$
DemPr PTCL DemPr DemPr NOMmasc.NOMmasc.
ACC fem. NOMmascDATmasc.
'this' 'this' 'this/him' 'sacrifice'
víkrāntim ví-kramate (ŚB 1.1.2.13)
ACCfem. V 3p.s.pres.
'v. stride' 'stride'
'This Viṣṇu, the sacrifice, strides this victorious stride for him.'

(34') ?/*eṣáḥ víṣṇuḥ yajñáḥ etásmai etā́m víkrāntim ví-kramate.

(35) [Ś yát áha **ágre agnim áha,**] [Śtát agnáye nihnute;]
RelPr PTCL Adv ACC V DemPr DAT V
'(in) that' 'first' 'A.' 'invoke' '(in) that"A.' 'propitiate'
átha [Śyáḥ devā́nām hótā] [Ś **tám ágre āha,**]
COMP RelPr GEN NOM DemPr Adv V
'now' 'who"gods' 'H.' 'him' 'first' 'invoke'
[Śtát devébhyaḥ nſhnute] (ŚB 1.5.1.15)
DemPr DAT V
'(in) that' 'gods' 'propitiate'
'In that he first invokes Agni, thereby he propitiates Agni; now, he first invokes him who [is] the hotṛ of the gods; thereby he propitiates the gods.'

Now, is the fronting of DemPr's a case of Topicalization or of Scrambling? Superficially, it looks more like Topicalization, for it differs from other instances of Topicalization only in being virtually obligatory. It differs from ordinary Scrambling in this respect too, and in addition it is limited to single words (like Topicalization) and in being definitely a case of leftward movement.[31] But what happens if we attempt a formal description of DemPr-fronting within the GB framework?

To be brief, I have found that a competition between formal descriptions of DemPr-fronting as Topicalization and as Scrambling comes to a draw. Treating it as a subcase of Topicalization requires one extra assumption — that TOP is a possible adjunction site, so that more than one constituent can be Topicalized — and two filters, the DemPr-Topic Filter which requires DemPr's to be dominated

by TOP at SS, and the Non-DemPr-Topic Filter, which prevents any non-DemPr dominated by TOP from being preceded by anything else — DemPr or not — likewise dominated by TOP.

DemPr-Topic Filter:

*[$_X$ DemPr], when X ≠ TOP

Non-DemPr-Topic Filter:

*[$_{TOP}$ X] [$_{TOP}$ -DemPr]

If we try to treat DemPr-Fronting as a subcase of Scrambling, however, we need one filter: the Dem Pr-Filter, which forces every constituent marked -DemPr to the left of the clause, and two extra assumptions: (i) that TOP is not a possible adjunction site, and (ii) that only lexical items are marked +DemPr.

DemPr-Filter:

*[$_S$ X[-DemPr] Y[-DemPr] ...] or *[$_S$ X[-DemPr] [... Y[+DemPr] ...]][32]

At least at this point, then, the formal theoretical analysis is not going to help us decide between these two hypotheses. I will therefore allow myself to be swayed by surface considerations and assume that DemPr-Fronting is an obligatory subcase of Topicalization.

5. Conclusion and summary

In this paper, I have presented arguments that in Vedic Sanskrit

(i) The TOP node is inherently Ø-Bar level;

(ii) The TOP node is base-generated as an empty node.

These two positions are needed to account for the fact that Topicalization affects only lexical items. If TOP is a Ø-Bar level node, it can only dominate a lexical item, so only a lexical item can be moved into it. For the sake of Structure Preservation, such a node must be base-generated in order to serve as a landing site for movement.

The grammar of Vedic Sanskrit must furthermore allow for Move α to operate generally on single words, in order for Movement-to-TOP to occur. It is argued that parameterizing certain details of Government and Case-Assignment, in ways that have already been suggested for other languages, as well as providing Ø-Bar-level landing sites, will permit this.

I have further argued that, in Vedic Sanskrit,

(iii) the TOP node is the niece (daughter of sister) of COMP and sister of S; for

(a) assuming that TOP is a daughter of S makes false predictions about the interaction between Scrambling and Topicalization; and

(b) assuming that TOP is a sister of COMP creates problems for an attempt to account for clause-boundedness of Topicalization by means of the Barriers theory. Since the Barriers theory is intended to be the means of accounting for such constraints cross-linguistically, it seems preferable to allow for a new entity, T^{max}, in order to enable the Barriers theory to account for the clause-boundedness of Topicalization, rather than to sacrifice the Barriers theory, allow TOP to be directly dominated by S, and find some other way of accounting for clause-boundedness.

NOTES

*I wish to thank Alice Davison, Mark Hale, Hans Henrich Hock, and Brian Joseph for helpful comments and criticism on an earlier draft of this paper. All errors of fact or interpretation are, of course, my own.

The following special abbreviations are used in this paper:

masc., fem., neut. = masculine, feminine, neuter gender
sg., du., pl. = singular, dual, plural number
NOM, ACC, INST, DAT, ABL, GEN, LOC, VOC = nominative, accusative, instrumental, dative, ablative, genitive, locative, vocative case
DemPr, IntPr, RelPr = demonstrative, interrogative, relative pronoun
Adv = Adverb
PTCL = Particle
1, 2, 3 = 1st, 2nd, 3rd persons
pres., impf., perf., aor. = present, imperfect, perfect, aorist tense
opt., subj., impv. = optative, subjunctive, imperative mood
absol. = absolutive or gerund
COMP = Complementizer
D-Structure or DS = 'Deep Structure'
ECP = 'Empty Category Principle'
GB = 'Government & Binding'
LF = 'Logical Form'
PF = 'Phonological Form'
SPH = 'Structure Preservation Hypothesis'
S-Structure or SS = 'Shallow Structure'
TOP = Topic node or position

All inter-word sandhi is undone and all words are cited, both in the text and in the examples, in pre-pausal form.

I assume that all clauses actually attested in the corpus of Vedic Prose literature are grammatical. In the absence of native speakers, judgments of ungrammaticality are impossible to acquire directly. Structures which are marked ungrammatical (*) are so marked on the grounds that such structures are unattested, as far as I or any other researchers I know of can tell, in the corpus of Vedic Prose literature, and that they can therefore be assumed to violate some of the principles of Vedic grammar, which principles it is my endeavour to establish.

[1]Emonds (1980:36) has effectively denied the existence of true free word-order languages, claiming that this expression is just an inaccurate label for what are free phrase-order languages. This paper shows that this contention ignores a sizeable amount of data.

[2]The current versions of $\bar{X}$ Theory tend to assume that 2 is the maximal Bar level, but there is still some controversy over this. The question shall not be an issue here, however; I shall assume that the maximal Bar level is indeed 2.

[3]I will label as $\bar{V}$-nodes constituents consisting of verbal roots with added prefixes. This is because in Vedic Sanskrit, the prefixes are separable, and the formalism of GB theory therefore requires that they be treated as distinct words within a phrasal unit. In Classical Sanskrit, verbal prefixes are not separable; instead, the verbal root-plus-prefix combination has been lexicalized and can therefore be treated as a simple V.

[4]Strictly speaking, there are also supposed to be 'specifiers', which are distinct from 'complements'; the distinction between specifiers and complements is supposed, in orthodox GB, to be related to the distinction between 1-Bar and 2-Bar level categories, but I doubt that this neat distinction can be made to work in Vedic Sanskrit. A typical specifier would be a

'determiner', or article, such as *etau* 'these two(NOM)' in *etau mahimānau* 'these two vases (NOM)' or *asya* 'this (GEN)' in *asya puruṣasya mṛtasya* 'this dead person (GEN)'; a subject NP is also assumed to be the specifier of the phrasal category IP = S.

[5]The Case theory within GB asserts that any NP that is phonologically realized (i.e., is overtly expressed) must have Case. Therefore, it is necessary for the grammar to have means of assigning Case to all such NPs. 'Case' with a capital C in GB is not exactly synonymous with the traditional notion of morphological case in a language like Sanskrit with a rich and detailed system of nominal case-inflection, since GB defines Case as a universal syntactic feature of all languages, including those, like English, with little or no morphological inflectional system. However, GB assumes that in languages like Sanskrit morphological case is a surface representation of underlying, syntactic Case.

[6]For a different treatment of INFL in an Indo-Aryan SOV language, see Wallace 1985.

[7]Whether the word *iti*, which when used as a quotation marker often occurs after its appended clause, qualifies as a COMP word is a question I have so far been unable to resolve.

[8]English, of course, is also a mixed language in its phrase structure: Clauses and noun phrases tend to be Head-final, but verb phrases are distinctly Head-initial. Huang 1982 has presented evidence that Chinese likewise must be analyzed as a mixed-type language.

[9]I acknowledge the force of the arguments in Zwicky 1985 that a cross-linguistic category 'particle' cannot be defined. However, the words I am talking about here appear clearly to form a definable category within Sanskrit, since they all share the phonological and syntactic behavior I shall be discussing. In order to capture the similarities between them, which are important for the discussion at hand, I shall adopt for them the generic label 'sentential particle'.

[10]Since the phenomena being discussed in this paper take place at the clausal level, I will not address the question of how the phrasal particles are inserted into phrasal units. I will merely note that they will appear in the clause-initial string, as a result of a variety of 'pied-piping', if a constituent in the phrase into which they are inserted gets topicalized.

[11]Some linguists (e.g. Hale 1987), struck by the similarity between this clause-second phenomenon and the clause-second behavior of clitic elements as described by Wackernagel's Law, have assumed that these particles are themselves clitics. However, I feel that such an assumption confuses more than it clarifies, since Vedic particles differ from the traditional notions of 'clitic-ness' in one important respect: While a few, namely *u*, *ca*, *vā*, *ha*, and *sma*, are always unaccented, a large number of particles are always accented. As argued in Wanner MS, while clitics can occasionally be superficially accented, such accentuation only occurs as a result of the operation of phonological rules that may for instance assign stress to alternating elements. The same forms which can occur accented in some environments are then found unaccented in others. But in Vedic there is no such alternation between accented and unaccented forms of the same particle. *ha*, for instance, is always accentless, and *hí* is always accented. The two are not alternative forms of each other: *ha* is an emphasizer, *hí* is a subordinate-clause marker. It seems to me that it would be best to acknowledge, as argued in Hock 1982a, that Vedic Sanskrit has several types of elements whose position within the clause is heavily restricted (not only clitic pronominals, but demonstratives, relative pronouns, and interrogatives), that sentential particles are among these, and that it is impossible to regard all of these elements as clitics.

[12]See Joseph's contribution to this volume for a discussion of the possibility of metrical variants of other particles.

[13]Note that another (apparent) variant of *evá*, namely *evám*, which seems to have existed in free variation with *evā́* in the meaning 'thus' during the early Vedic period, in the Classical language was generalized in this meaning, leaving *evá* with only the particle function.

[14]Note, however, that such words do not obligatorily function as clause-connectors; cf. (a) - (c). (See Delbrück 1888:36,484 and Hock 1982a: n.10 for additional discussion of the possible or occasional extraclausality of such words.)

(a) tátaḥ ha enām ná śekatuḥ nírhantum (ŚB 1.1.4.17)
ABL PTCL ACC Adv. V 3du.perf. Inf.
'there' 'it' 'not' 'be able' 'expel'
'Thence those two were not able to expel it.'

(b) ná hí tát ava-kálpate (ŚB 1.1.1.6)
Adv. PTCL NOMneut. V 3sg.pres.
'not' 'that' 'be fitting'
'... for that would not be fitting ...'

(c) tát evá asya eténa sárvam āptám bhavati (ŚB 1.1.1.15)
NOMneut. PTCL GEN INST NOMneut. V 3sg.pres.
'that' 'him' 'this' 'all' 'obtained' 'be'
'All that is obtained by this for him.'

[15]That forms of the pronominal root *tad* can function as clause-connectors is clear also from the evidence of the structure *tát X evá etát* which occurs frequently in the Śatapatha Brāhmaṇa; cf. the following examples. *Etát* is a Demonstrative Pronoun and, as will be shown below, Demonstrative Pronouns are obligatorily topicalized in Vedic Prose, whether anything else is topicalized or not. Furthermore, as shown in Hock 1982a, if a non-demonstrative is topicalized it will occupy the first position in the clause. So *X* in this structure (in boldface in the following examples) is always the first word in the clause. Therefore the word preceding it cannot be within the clause, and, from the point of view of GB, must be in COMP.

(a) tát **prathaména** evá etát kármaṇā sárvam āpnoti (ŚB 1.1.1.14)
INST INST ACC V 3sg.pres.
'thus' 'first' 'this' 'act' 'all' 'obtain'
'Thus by (this) first act he obtains all this (universe).'

(b) tát **yajñamukhát** evá etát nāṣṭrā́ḥ rákṣāṁsi atáḥ apahanti
ABL ACC ACC Adv. V 3sg.pres.
'so' 'beginning of the sacrifice' 'thus' 'demons' 'Rakṣas' 'hence' 'drive off'
(ŚB 1.1.2.3; 1.1.2.15)
'So he thus drives the demons, the Rakṣas off hence, from the beginning of the sacrifice.'

(c) tát **devébhyaḥ** ca evá etát pitṛ́bhyaḥ ca ā́rtvijyam karişyán ní-hnute
DAT DAT ACC partcpl. V 3sg.pres.
'thus' 'gods' '&' 'ancestors' '&' 'priestly duties' 'performing' 'propitiate'
(ŚB1.4.5.1)
'Thereby he, about to perform priestly duties, propitiates the gods and the ancestors.'

(d) tát **yajñásya** evá etát saṁsthā́m gatvā́ námaḥ devébhyaḥ karoti
GEN ACC absol. ACC DAT V 3sg.pres.
'thus' 'sacrifice' 'completion' 'gone (to)' 'reverence' 'gods' 'do'
(ŚB 1.9.1.23)
'Having reached the completion of the sacrifice, he thereby then does reverence to the gods.'

[16]The existence of a form *átho*, which is etymologically a combination of the 'COMP-word' *átha* and the sentential particle *u*, would seem to conflict with the claim that particle-movement is obligatory. However, this combination seems to have been lexicalized very early in the history of Sanskrit, so that *átho* functions for all intents and purposes as a separate word, independent from *átha*. The following example, from one of the earliest collections of Vedic Prose, clearly indicates that the *u* etymologically included in *átho* is invisible as far as synchronic Vedic syntax is concerned. The fact that this sentence includes another, independent particle, *vaí*, and that the latter occurs after the word *mánasā*, and not after the putative *u* in *átho* is

evidence that the latter is no longer being treated by the syntax as a particle subject to the same positional constraints as *vaí*.

átho	mánasā	vaí	prajā́patiḥ	yajñám	atanuta (TS 1.6.8.4)
	INST	PTCL	NOM	ACC	V 3sg.impf.
'then'	'mind'			'sacrifice'	'perform'

'Then Prajāpati performed the sacrifice with his mind.'

[17]In the examples in the following portions of this paper, I will for this reason from time to time ignore particles in labelled bracketing. As a consequence, particles may be included in the bracketing of a phrasal constituent to which they do not logically belong.

[18]Chomsky reiterates this assumption in 1986b:88.

[19]Cf. note 17 about the inclusion of particles within phrasal brackets.

[20]As will be discussed below in the section on 'scrambling', the process called 'adjunction' constitutes an exception to this description of the SPH. However, it is the only one, and is stated as such in Emonds's definition.

[21]Examples include: In Sanskrit, *bhī* 'fear' for Ablative, *kup*, *krudh* 'be angry' and *ruc* 'please' for Dative, *īś* 'rule' and *smṛ* 'remember' for Genitive, and *bandh* 'attach', *mad* 'enjoy' for Locative; in Greek, *basileuō* 'rule' and *thigganō* 'touch' for Genitive and *eukhomai* 'pray', *pisteuō* 'trust' for Dative; in Latin, *placeo* 'please' and *studeo* 'study' for Dative and *careo* 'lack', *utor* 'use' for Ablative; in Russian, *boyat'sya* 'fear' and *ž'elat'* 'desire' for Genitive, *v'erit'* 'believe' and *pomoč'* 'help' for Dative, and *vladet'* 'master' and *dišat'* 'breathe' for Instrumental; and in German, *helfen* 'help' for Dative and *gedenken* 'remember', *harren* 'await' for Genitive.

[22]For the passing of Case and θ-role assignment along chains (or equivalently, the assigning of Case and θ-role to chains as opposed to constituents), cf. Chomsky 1981:331-335. The notion is invoked to account for the grammaticality of strings like those below, in each of which only one of the coindexed elements receives Case or θ-role directly, but by virtue of the linking chain, all the coindexed elements within a string share these features.

(a) Who$_i$ do you think [t_i saw Bill]?

(b) Who$_i$ do you think t_i [Bill said [t_i saw John]]?

(c) [Every piece by Ellington]$_i$ is difficult for some member of the band [to play t_i]

[23]In fact, Sproat 1985 has suggested just such a solution for the problem offered by Celtic languages, which have VSO as their basic, unmarked constituent order, and therefore generally have discontinuous VPs and objects assigned Case by remote verbs. (I am not here subscribing to Sproat's analysis of Welsh as having underlyingly SVO order, only citing his work as an independent example of the feasibility of Head-movement within a GB framework.)

[24]It may be noted that the proposed analysis of Sentential Particles involves their starting out in COMP and then moving into a position to the right of the first word in the sister of COMP. This would, apparently, preclude their *c*-commanding their traces in COMP. However, the ECP is crucially a characteristic of LF. If, as proposed, Particle Movement takes place at PF, the ECP would never know about it because, in orthodox GB, there is no direct connection between PF and LF. This is one of the advantages of the multi-level analyses made possible within GB, with different constraints operating at different levels.

[25]Hereafter, instead of giving 'tree' diagrams, I will provide bracketing diagrams of this type for all structures.

[26]Formal definitions of government vary within GB, but, somewhat oversimplified, the general thrust is something like this:

> A Ø-Bar level category A governs some other category (of any type) B if A is included within any maximal projection that dominates B.

See Chomsky 1981:162-170 for a discussion of various definitions of government, and the insights motivating them.

[27]For instance, in the following example it might be argued that *véda* 'knows' subcategorizes for an $\bar{S}$ complement, *idám átaḥ kárma kartávyam íti*, as reflected in the English

translation, 'that this work is now to be done.' However, it might also be argued that the only complement of *véda* is *etát*, which is then coreferenced with *idám* in an independent clause. However, this analysis would leave unaddressed the question of the function of *íti*.

svayám u hí evá etát véda idám átaḥ kárma kartávyam íti (ŚB 1.2.5.21)
'self' P T C L 'this' 'knows' 'this' 'now' work' 'to be done' COMP(?)
'He himself knows that this work is now to be done.'

[28]There is also, Chomsky says (1986b:14-15, passim), independent reason why S cannot be a Barrier for its immediate daughters.

[29]There has already been a fair amount of discussion in GB literature about the obligatory fronting of interrogative and relative pronominals, so-called 'WH-Fronting', in Indo-European languages in general. In Sanskrit, however, the same or similar processes seem to have affected a wider range of pronominals. Sanskrit may in this respect reflect the common practice of older Indo-European languages, while many modern Indo-European languages have restricted the class of words to which WH-Fronting applies — and in some languages reinterpreted it as movement to COMP.

[30]Cf. Hock 1982a:10-14 for discussion of the hypothesis that these pronominals are in fact fronted, whether they occupy clause-initial position or not.

[31]While adjunction, which is what I assume scrambling to be, is in GB usually assumed to be leftward, there is to my knowledge no theory-internal reason why it must be so.

[32]The necessity of trying to cover any amount of clause-internal embedding in this filter may, in fact, be a point against this hypothesis.

Verb-medial clauses in Vedic: Some theoretical implications*

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0. Introduction

Throughout the history of the Sanskrit language, the normal, 'unmarked' position of the verb is at the end of the clause, cf. examples (1-3). At least under certain circumstances (cf. Gonda 1952:67, as well as Klein's contribution to this volume), the verb may appear at the beginning of the clause. Compare examples (4-8). In this paper, I will discuss clauses in which the verb appears neither at the end nor at the beginning, but somewhere in the middle; cf. e.g. (9) and (10).

(1) víśaḥ kṣatríyāya balím haranti (ŚB 1.3.2.15)
NOMpl. DATsg. ACC V 3pl.pres.
'peasants' 'prince' 'tribute' 'bring'
'The peasants bring tribute to the prince.'

(2) saḥ tredhā ātmānam vi-akuruta (BAU 1.2.3)
NOM Adv. ACC V 3sg.impf.
'he' 'threefold"himself' 'divide'
'He divided himself threefold.'

(3) aṅgirasaḥ vai ime svargāya lokāya satram āsate
NOMpl PTCL NOMpl. DAT DAT ACC V 3pl.pres.
'these' 'heavenly"world' 'session"maintain'
(AB 5.14.3)
'These Aṅgirases maintain a session for (going to) heaven.'

(4) á-gachanti īm ávasā
V 3pl.pres. ACC(cl.) INST
'come' 'him' 'aid' (RV 1.85.11)
'They come to him with aid.'

(5) indhé ha vaí etát adhvaryúḥ idhména agním
V 3sg.pres. PTCL Adv. NOM INST ACC
'ignite' 'kindling' 'fire'
(ŚB 1.3.5.1)
'Now the Adhvaryu lights the fire with the kindling.'

(6) út-gṛhṇīte vaí eṣáḥ asmắt lokắt devalokám abhí
V 3sg.pres.mid. PTCL NOM ABL ABL ACC Adp.
'lift' 'he' 'this' 'world' 'world of g.' 'towards'
(ŚB 3.1.4.1)
'He lifts himself from this world toward the world of the gods.'

(7) ví-bhajante ha vaí imắm ásurāḥ pṛthivîm (ŚB 1.2.5.3)
V 3pl.pres. PTCL ACC NOM ACC
'divide up' 'this' 'demons' 'earth'
'The demons are dividing up this earth.'

(8) ut-ắ-nayati néṣṭā pátnīm pānnéjanam bíbhratīm
V 3sg.pres. NOM ACC ACC ACC
'lead up' 'wife' 'foot-washing vessel' 'bearing'
(ŚB 3.8.2.1)
'The Neṣṭṛ leads up the (sacrificer's) wife (who is) bearing a vessel for the washing of feet.'

(9) hiráṇyamayam púruṣam úpa-dadhāti yajamāna-lokásya vídhṛtyai
ACC ACC V 3sg.pres. GEN DAT
'golden' 'man' 'deposit' 'sacrificer's world' 'maintaining'
(TS 5.2.7.2)
'He deposits the golden man, for maintaining the sacrificer's world.'

(10) tena ābhyaḥ annādyam pra-ayacchat varṣam eva apanidhanena
INST DAT(cl.) ACC V 3sg.impf. ACC PTCL INST
'that' 'them' 'food' 'present' 'rain' 'without ap.'
(JB 1.117)
'Thereby to them he presented food, i.e. rain, (but) without the apanidhana (= concluding passage of the chant).'

Unless a case can be made for claiming that the verb has indeed been 'moved', I will assume that in such 'verb-medial' clauses, the verb is in its normal structural position, and certain other elements, which would normally precede it, occur to its right. Such elements are commonly said to be 'extraposed', and will be so referred to here.[1] I will be addressing the following questions:

(i) What sorts of constituents can be extraposed?

(ii) What constraints, if any, are there on extraposition?

Briefly, my conclusions are that any kind of constituent can be extraposed, though some registers or types of literature show constraints which do not apply to others. However, there is evidence for one constraint that applies across the board virtually without exception, a constraint involving verbal complements. I will argue that this constraint constitutes evidence for a 'VP' constituent in Vedic.

1. Adjuncts and arguments

In the course of my research on this issue, I have increasingly found that the distinction between arguments and adjuncts is important. (Gonda 1952, 1959 makes a similar distinction.) Briefly, the extraposition of adjuncts is a frequent occurrence in all varieties of Vedic Sanskrit, from the rich poetic syntax of the Rig-Veda to the pedantic prose of the Śatapatha-Brāhmaṇa. On the other hand, the extraposition of arguments, while not uncommon in mantra literature, is rare in Brāhmaṇa prose.

In general syntactic theory, an argument is usually assumed to be any constituent that is syntactically necessary to the clause and whose absence would result in the clause being ill-formed and uninterpretable. In most formal syntactic

frameworks, the single most essential constituent of a clause is the verb, preferably finite. However, since I am defining extraposition in reference to the verb, the extraposition of finite verbs would be a contradiction in terms. So the question of whether the verb, undeniably important, qualifies as an argument is irrelevant to our discussion.

Since all would probably agree that the subject is syntactically and semantically necessary to the clause (though, of course, in a language like Sanskrit it may be unexpressed), my working definition of 'argument' includes the subject among the arguments of the clause.

Most if not all other arguments tend to be defined in terms of the verb's 'subcategorization frame' (cf. Gazdar et al. 1985:§2.5). They would include direct objects, if any (i.e. if the verb is transitive). We should also, I believe, include second (direct) objects of ditransitives (cf. Hock 1985b on such 'double-object' structures), goals of verbs of motion, indirect objects, if any, and at least some 'predicate nominals'. Beyond these, the delimitation of argumenthood becomes a little murky. There may be other kinds of constituents that are subcategorized by certain small classes of verbs. (For instance, do verbs like *dhā* 'put' subcategorize for locatives? Do certain verbs of motion subcategorize for origin as well as goal?[2]) The variety of verbs is great, and it is difficult to define a small set of pigeonholes such that all the verbs in any language, especially a lexically and morphologically rich language like Sanskrit, can be comfortably fitted. It may turn out that there is some irreducible vagueness about some subcategorization frames.[3]

An adjunct, for the purposes of our discussion, is any constituent that is not an argument. At least in Sanskrit, the set of adjuncts seems to consist mostly if not entirely of two types of constituents: adverbials and appositives.

An adverbial adjunct would be any phrase which modifies the sense of the whole clause, or of the verb itself. In Sanskrit, this class would include adverbs, adpositional phrases, and oblique NPs. Within the class of appositives I include modifiers of NPs, both adjective phrases and genitive NPs, vocatives, and full NP appositives which agree in case with their coreferents. I offer (11-14) as examples of the extraposition of oblique NPs, instrumental, dative, ablative, and locative respectively, (15) as an example of the extraposition of an adverb, (16) of an adpositional phrase, and (17-19) of the extraposition of appositive NPs.

(11) várṣiṣṭham rátnam akṛta svadhābhiḥ (RV 3.26.8)
ACC ACC V 3sg.aor. INST
'highest' 'treasure' 'serve' 'own powers'
'He has with his own powers served the highest treasure.'

(12) hiráṇyamayam púruṣam úpa-dadhāti yajamāna-lokásya vídhṛtyai
ACC ACC V 3sg.pres. GEN DAT
'golden' 'man' 'deposit' 'sacrificer's world' 'maintaining'
(TS 5.2.7.2)
'He deposits the golden man, for maintaining the sacrificer's world.'

(13) na hi draṣṭuḥ dṛṣṭeḥ viparilopaḥ vidyate avināśitvāt
Adv. PTCL GEN GEN NOM V 3sg.pres. ABL
'not' 'seer' 'seeing' 'loss' 'imperishability'
(BAU 4.3.23)
'For there is no loss of a seer's seeing (ability), because of imperishability.'

(14) átha átra yathāyathám devā́ḥ chándāṁsi akalpayan
COMP Adv. Adv. NOM ACC V 3pl.impf.
'therefore' 'here' 'as should be' 'gods' 'meters' 'arrange'
anuyājéṣu (ŚB 1.8.2.10)
LOC
'after-offerings'
'The gods therefore arranged the meters here, at the after-offerings, as they should be.'

(15) tát nīcaíḥ-iva harati dvayám
COMP Adv. V 3sg.pres. Adv.
'then' 'along the ground' 'draw' 'twice'
(ŚB 1.8.3.14)
'He then draws (it) twice along the ground.'

(16) íṣām naḥ netā́ bhavatāt ánu dyū́n
GENpl. GEN(cl.) NOMsg. V 2sg.impv. Adp. ACCpl.
'drink' 'our' 'leader' 'be' 'days'
(RV 3.23.2)
'Be our leader to drink every day.' = 'Lead us to drink every day.'

(17) tásmai etám vájram abhigoptā́ram akurvan amúm evá ādityám
DAT ACC ACC ACC V 3pl.impf. ACC PTCL ACC
'him' 'this' 'thunderb.' 'protector' 'make' 'that' 'sun'
(ŚB 7.3.2.18)
'They made this thunderbolt, (i.e.) that sun, a protector for him.'

(18) tasmai etām āsandīm sam-abharan ṛcam nāma
DAT ACC ACC V 3pl.impf. ACC Adv.
'him' 'this' 'throne' 'bring' 'by name'
(AB 8.12.3)
'For him they brought this throne known as *ṛc*.'

(19) tát ít agníḥ rakṣati áprayuchan (RV 3.5.6)
ACC PTCL NOM V 3sg.pres. NOM
'that' 'take care of' 'attentive'
'Agni, attentive, takes care of that.'

As can be seen, examples of the extraposition of adjuncts occur in all varieties of Vedic literature. Note especially purpose datives (cf. (12)), which extrapose so frequently in both Vedic Prose and Mantra Vedic that the post-verbal position might almost be considered their normal position. As has been observed by Gonda (1959:24), the same might be said of appositives, at least in certain registers or circumstances.

As noted above, however, the extraposition of arguments is rare in Vedic Prose. Examples (20-21) below, with extraposition of a subject and an object, respectively, come from the Aitareya-Brāhmaṇa. While this text is in general somewhat freer in its style than, for instance, the Śatapatha-Brāhmaṇa, Verpoorten (1977:80) remarks that good examples of argument extraposition are extremely hard to find.[4] Examples (22-27) are all from the mantra literature. (22-23) show extraposition of whole subject NPs, (24-25) of nominative pronouns in imperative clauses, and (26-27) of objects. Note that (27) is an example of a clause with a ditransitive verb, in which one of the objects is extraposed, but not the other. Gonda (1959:§4-6) notes that this is not at all uncommon with ditransitives in the mantra literature.

(20) evam ṣaṣṭhe ahani kalpate yajñaḥ (AB 6.31.1)
Adv. LOC LOC V 3sg.pres. NOM
'thus"sixth' 'day' 'succeed' 'sacrifice'
'Thus on the sixth day the sacrifice succeeds.'

(21) tābhiḥ jvalantībhiḥ dīpyamānābhiḥ upa-ut-eti rājānam
INST INST INST V 3sg.pres. ACC
'those' 'flaming' 'shining' 'approach' 'king'
(AB 8.24.6)
'With those flaming, shining (weapons) he approaches the king.'

(22) ā́ mātárā viviśuḥ saptá vā́ṇīḥ (RV 3.7.1)
Pvb. ACCdu. V 3pl.perf. NOMpl.
'mothers' 'enter' 'seven' 'voices'
'The seven voices entered the two mothers.'

(23) mádhu svā́dma duduhe jényā gaúḥ (RV 3.31.11)
ACC ACC V 3sg.perf. NOM NOM
'honey"sweet' 'give milk' 'noble"cow'
'The noble cow gave sweet honey.'

(24) víśvā hí agne duritā́ tara tvám
ACCpl. PTCL VOC ACCpl. V 2sg.impv. NOM
'all' 'difficulties' 'cross' 'thou'
(AV 2.6.5)
'O Agni, do thou cross all difficulties.'

(25) imám viśā́m ekavṛ́ṣam kṛṇu tvám (AV 4.22.1)
ACC GEN ACC V 2sg.impv. NOM
'this' 'people' 'chieftain' 'make' 'thou'
'Make thou this (man) chieftain of the people.'

(26) evá anéna havíṣā yakṣi devā́n (RV 3.17.2)
Adv. INST INST V 2sg.impv. ACC
'so' 'this' 'oblation' 'sacrifice' 'gods'
'So with this oblation sacrifice to the gods.'

(27) yéna samudrám ásṛjaḥ mahī́ḥ apáḥ (RV 8.3.10)
INST ACC V 2sg.impf. ACC ACC
'which' 'ocean' 'great' 'waters'
'By which you made the great waters flow to the ocean.'

2. Partial extraposition

In addition to extraposing whole constituents, Sanskrit permits the 'breaking up of an NP constituent by the verb, resulting in the extraposition of only part of the NP in question.

The 'insertion' of the verb into the midst of a conjunct NP, and the consequent extraposition of part of the conjunct, is common throughout the Vedic literature. See for instance examples (28-32).

(28) imā̃n ca lokā̃n upa-hváyate etā̃ni ca sā́māni
ACC & ACC V 3sg.pres. ACC & ACC
'these' 'worlds' 'summon' 'these' 'chants'
(ŚB 1.8.1.19)
'He summons these worlds and these chants.'

(29) saḥ enam svargam lokam abhi-vahati kṣatram ca balam ca
NOM ACC ACC ACC V 3sg.pres. ACC & ACC &
'he' 'him' 'heavenly' 'world' 'carry towards' 'dominion' 'strength'
rāṣṭram ca viśam ca (AB 8.24.7)
ACC & ACC &
'empire' 'tribe'
'He carries him toward the heavenly world, and to dominion and strength and empire and tribe.'

(30) tam etam vedānuvacanena brāhmaṇāḥ vividiṣanti yajñena
ACC INST NOM V desid.3pl.pres. INST
'this' 'Veda study' 'Brahmins' 'know' 'sacrifice'
dānena tapasā anāśakena (BAU 4.4.22)
INST INST INST
'oblations' 'austerity' 'fasting'
'Brahmins desire to know this through study of the Vedas, through sacrifice and oblations, through austerity and fasting.'

(31) tā́ḥ mā sahasrapárṇyaḥ mṛtyóḥ muñcantu áṁhasaḥ
NOMpl. ACC ABL ABL V 3pl.impv. ABL
'they' 'me' 'arrow' 'death' 'deliver' 'distress'
(AV 8.7.13)
'May they deliver me from the arrow, from death, and from distress.'

(32) trī́ rocanā́ varuṇa trī́n utá dyū́n trī́ṇi mitra
ACCn. ACCn. VOC ACCm. & ACCm. ACCn. VOC
'three' 'shining' 'three' 'heavens' 'three'
dhārayathaḥ rájāṁsi (RV 5.69.1)
V 2du.pres. ACCn.
'maintain' 'skies'
O (Varuṇa and) Mitra, you maintain the three shining (spheres), the three heavens, the three skies.'

The verb can equally well intervene between a noun and its adjectival or genitive modifiers, resulting in the extraposition of either the head or the

modifiers, or even, as in example (36), of the head and one or more modifiers, leaving just one modifier in 'normal' position.

Because of the ease with which a putative adjective may function in Sanskrit as a noun, i.e. as the head of a noun phrase, strings such as (33-36), which a literal translation into English would suggest involve separation between head nouns and their adjectival modifiers, may actually involve the apposition of two distinct but coreferential NPs. This alternative analysis seems especially possible in examples like (33) and (34), in which the putative head noun is in a 'normal' position, to the left of the verb, while its putative adjectival modifier(s) is/are to the right. In such cases, the extraposed constituents, serving to provide extra incidental information about the referent of the NP in question, function very much like appositives. And strings such as those in (35) and (36), in which it is the putative head noun that has been extraposed, could be described in the same way. In either case, we have the option of seeing these strings as including two appositional NPs, one of which is extraposed, a situation which, as noted above, is quite common.

(33) índrasya bāhúḥ asi dákṣiṇaḥ (ŚB 1.2.4.6)
GEN NOM V 2sg.pres. NOM
'arm' 'be' 'right'
'You are Indra's right arm.'

(34) ā́ yát vām sūryā́ rátham tíṣṭhat raghuṣyádam sádā
Pvb. Rel. Obl NOM ACC V 3sg.inj. ACC Adv.
'when''your' 'chariot' 'mount' 'swift' 'always'
(RV 5.73.5)
'When Sūryā shall mount your always-swift chariot ...'

(35) mitrám práthiṣṭham úpa-yāmi śárma (RV 10.87.1)
ACC ACC V 1sg.pres. ACC
'friend''principal' 'approach' 'protection'
'I go to (the) friend for principal protection.'

(36) ā́ mandrásya sanişyántaḥ váreṇyam vṛṇīmáhe áhrayam
Pvb GEN NOMpl. ACC V 1pl.pres. ACC
'pleasant' 'longing' 'desirable' 'seek' 'bold'
vā́jam ṛgmíyam (RV 3.2.4)
ACC ACC
'treasure' 'praiseworthy'
'Longing we seek the desirable, bold, praiseworthy treasure of the pleasant one.'

The problem of partial extraposition becomes acute, however, when we are faced not with (putative) adjectival modifiers but with genitive-NP modifiers. While typical appositives, just like modifying adjectives, agree in morphological case with the NPs with which they are coreferential, genitive NPs are marked out by their morphological case as bearing a role of their own, and therefore need to be collocated with some sort of governor (head noun, verb, or adposition) in order to be properly integrated into the rest of the clause. Therefore, there are in at least some theoretical frameworks good reasons for assuming that a genitive NP and its putative head-noun governor belong to the same phrase. However, in

Vedic Sanskrit it is not unusual to find the two separated by the verb. In examples (37-39), it is the genitive modifier that is extraposed; in (40-42), it is the (putative) head noun.

(37) tát etát purástāt mithunám prajánanam kriyate
COMP Adv. NOM NOM V 3sg.pres.pass.
'at beginning' 'union' 'procreation' 'make'
sāmidhenînām (ŚB 1.4.1.2)
GEN
'kindling verses'
'Thus at the beginning a fruitful union is made of the kindling verses.'

(38) atha antataḥ prajātim ā-śāste gavām aśvānām
COMP Adv. ACC V 3sg.pres. GEN GEN
'finally' 'offspring' 'invoke' 'cows' 'horses'
puruṣāṇām (AB 8.11.5)
GEN
'people'
'Then finally he invokes offspring of = for cows, horses, people.'

(39) índraḥ púraḥ ví-airat śámbarasya (RV 2.19.6)
NOM ACCpl. V 3sg.impf. GEN
cities' 'destroy'
'Indra destroyed the cities of Śambara.'

(40) yáḥ jánānām ásat vaśî (RV 3.23.3)
NOM GEN V 3sg.subj. NOM
'who' 'people' 'be' 'lord'
'Who may be the lord of mankind.'

(41) á devánām abhavaḥ ketúḥ agne (RV 3.1.17)
Pvb. GEN V 2sg.impf. NOM VOC
'gods' 'become' 'ensign'
'Agni, you became the ensign of the gods.'

(42) tábhiḥ naḥ pāhi gíras áprayuchan
INSTpl. GEN(cl.) V 2sg.impv. ACC NOM
'those' 'our' 'protect' 'invocations' 'unceasing'
(RV 3.20.2)
'With those protect our invocations unceasing(ly).'

3. Statistics

In addition to drawing on data in Delbrück 1878, 1888, Bloomfield 1912, Gonda 1952, 1959, and Verpoorten 1977, I have investigated maṇḍala 2-6 of the Rig-Veda, aṣṭaka 5 of the Taittirîya-Saṁhitā, pañcaka 1-3 of the Aitareya-Brāhmaṇa and kaṇḍa 1, 5, and 10 of the Śatapatha-Brāhmaṇa. In particular, I kept careful statistics of all the examples of extraposition that I found in maṇḍala 3 of the Rig-Veda. (In the other maṇḍalas, I primarily sought examples of multiple extraposition, cf. below.)

Among 1189 clauses of the third maṇḍala of the Rig-Veda, I found 206 examples of the extraposition of single constituents or parts thereof, i.e. in slightly more than one out of six clauses. 166 of these were extraposed whole constituents, leaving 40 examples of partial extraposition, a ratio of about four to one.

In view of the above statement that adjunct extraposition is far more common in the prose literature than argument extraposition, it is interesting to note that the ratio of single-argument to single-adjunct extraposition in the Rig-Veda appears to be nearly 50/50 (more precisely, 99/107 in the third maṇḍala). Approximately one out of every 12 clauses in maṇḍala 3 has an extraposed argument.

Also of some interest is the relative frequency of subject and object extraposition. In maṇḍala 3, I found 19 examples of whole-subject extraposition (still considering only single extraposition) and 11 of partial-subject extraposition for a total of 30, or 2.5 %. On the other hand, there were 33 completely extraposed and 19 partially extraposed direct objects, a total of 52 examples of direct-object extraposition. Of course, these figures ought not to be measured against the total number of clauses in the maṇḍala, since nearly 200 of the 1189 are intransitive (or at any rate, lacking verb-complement). Rather, they should be measured against the approximately 1000 transitive clauses, which gives a ratio of about 5% direct-object extraposition, or roughly twice that for subject extraposition.[5]

4. Multiple extraposition

So far, I have been considering clauses in which only one constituent (though perhaps a complex one) is extraposed. But Vedic Sanskrit also offers examples of 'multiple extraposition', i.e. the extraposition within the same clause of several elements, belonging to more than one constituent. This may involve the extraposition of whole constituents, parts of constituents, or a mixture of both. In example (43) we have an extraposed subject and instrumental adjunct, in (44) an extraposed direct object (enclitic), locative adjunct, and purpose-dative-infinitive phrase, in (45) an extraposed adpositional phrase and adverb, in (46) an extraposed appositive of the direct object and an instrumental adjunct, in (47) an extraposed instrumental adjunct and purpose-dative-infinitive phrase, and in (48) various extraposed modifiers of the direct object and a locative adjunct.

(43)

aṁśúm	duhanti	hastínaḥ	bharítraiḥ	(RV 3.36.7)
ACC	V 3pl.pres.	NOMpl.	INSTpl.	
'libation'	'milk'	'endowed with hands'	'arm'	

'With their arms the ones endowed with hands (= the priests) milk the libation.'

(44)

índraḥ ha	cakre	tvā	bāhaú	ásurebhyaḥ	stárītave
NOM PTCL	V 3sg.perf.	ACC(cl.)	LOC	DATpl.	DAT.inf.
	'place'	'you'	'arm'	'demons'	'lay low'

(AV 2.27.3)

'Indra placed you on his arm to lay low demons.'

(45) | té | tvā | manthantu | prajáyā | sahá | ihá
---|---|---|---|---|---
NOMpl. | ACC(cl.) | V 3pl.impv. | INST | Adp. | Adv.
'they' | 'you' | 'churn' | 'progeny' | 'with' | 'here'

(AV 11.1.1)
'Let them churn you here together with progeny.'

(46) | tena | ābhyaḥ | annādyam | pra-ayacchat | varṣam | eva
---|---|---|---|---|---
INST | DAT(cl.) | ACC | V 3sg.impf. | ACC | PTCL
'that' | 'them' | 'food' | 'present' | 'rain' |

apanidhanena (JB 1.117)
INST
'without concluding passage'
'Thereby to them he presented food, i.e., rain, (but) without the concluding passage (of the chant).'

(47)	tat	ubhayataḥ	annādyam	pari-gṛhṇāti	somapīthābhyām
COMP	Adv.	ACC	V 3sg.pres.	INSTdu.
'on both sides'	'food'	'surround'	'soma libations'

annādyasya parigṛhītyai (AB 2.30.4)
GEN DAT.
'food' 'surrounding'
'He then surrounds the food on both sides with two soma libations, for the purpose of surrounding (= obtaining) the food.'

(48)	vaiśvakarmaṇam	ṛṣabham	savanīyasya	upālambhyam	ā-labheran
ACC	ACC	GEN	ACC	V 3pl.opt.
'consecrated to V.'	'bull'	'soma-sacr.'	'additional'	'immolate'

dvirūpam	ubhayataḥ	etam	mahāvratīye	ahani
ACC	Adv.	ACC	LOC	LOC
'two-coloured'	'on both sides'	'this'	'mahāvrata'	'day'

(AB 4.22.8)
'On the mahāvrata day, they should immolate as an additional (victim) of the soma-sacrifice, this bull, two-coloured on both sides, consecrated to Viśvakarman.'

For the sake of any statistical interest, the extraposition of any argument and any adjunct proved to be as common as the extraposition of single whole direct objects, i.e. about 5% of the clauses investigated in the Rig-Veda showed such multiple extraposition. Extraposition of more than one adjunct, interestingly, occured only a third as often, while extraposition of more than one argument occured only 1/6 as often.

5. Multiple Extraposition Constraint

In this section, I will argue that the observed details of multiple extraposition in Vedic suggest that the processes of extraposition in this language are sensitive to the distinctions between Verb Phrase (VP) and Sentence (S), and therefore that the distinction is a real one in the grammar of Vedic. For the purpose of the discussion I will distinguish between the subject of a clause and any non-subject arguments, by labeling the latter 'verb-complements'.

First, a couple of caveats. Borsley 1984 argues on the basis of similar distribution facts in English that there is, cross-linguistically, no distinction between VP and S. However, all he has really succeeded in demonstrating is that VP and S have certain features in common, a fact admirably accounted for in Generalized Phrase Structure Grammar (GPSG), the theoretical framework within which his argument is couched, by the assumption that VP and S are both phrasal projections of V, differing only in their values for the binary feature SUBJ (cf. Gazdar et al. 1985:§2.2).

Also, some might argue that the existence in Sanskrit of an active-passive dichotomy, implying the existence of something in the nature of a 'passive transformation', points to an asymmetry between Subject and Direct Object, and that this asymmetry in turn constitutes evidence for a VP constituent. I agree that such an asymmetry exists in Sanskrit, but only in a framework like orthodox Government & Binding (GB) theory, which defines such asymmetries on the basis of structural distinctions, does it argue for the existence of VP. In a framework like Lexical Functional Grammar, in which the distinction between Subject and Object has nothing inherently to do with constituent structure, such an argument would be meaningless. I am looking for theory-independent evidence for or against the existence of VP in Vedic, evidence for hypothetical constituent structure based on overt facts of constituent structure, and I believe that the constraints on the ordering of extraposed constituents to be described below provide such evidence.

The observed details of multiple extraposition in Vedic boil down to one general impression: Freedom of constituent order to the left of a non-fronted verb is much greater than to its right. They further suggest the following theoretical generalization: The less likely a constituent is to be included within VP, the less likely it is, when extraposed, to intervene between the verb and an extraposed verb-complement. This generalization I shall hereafter refer to as the 'Multiple Extraposition Constraint' (MEC).

What constituents are contained within VP? One assumes that all verb-complements, the arguments subcategorized for by the verb in the sense alluded to earlier, are by definition included within VP if a VP node exists, although as we shall see this assumption may turn out to be an oversimplification.

That extraposed verb-complements may separate other extraposed complements from the verb is evident from such examples as (49-51):

(49) tám citráyāmam hárikeśam īmahe sudītím agním
ACC ACC ACC V 1pl.pres. ACC ACC
'that' 'shining-path' 'golden-haired''petition' 'bright'
suvitáya návyase (RV 3.2.13)
DAT DAT
'good fortune' 'new'
'We petition the bright, golden-haired Agni whose path is shiny for renewed good fortune.'

(50) puráḥ-dádhat sanişyati kratúm naḥ (RV 5.31.11)
NOM V 3sg.fut. ACC DAT(cl.)
'honouring' 'win' 'power' 'us'
'The honouring one will win power for us.'

(51) á dūtáḥ vakşat yajáthāya devắn (RV 3.5.9)
Pvb. NOM V 3sg.subj. DAT ACC
'herald' 'bring' 'sacrifice' 'gods'
'The herald shall bring the gods to the sacrifice.'

Setting aside temporarily the issue of verb-complements, there are two other apparent categories of extraposable constituents, subject NPs and adjuncts. Of these, subject NPs are assumed not to be included within VP and will be discussed later. Adjuncts, as explained earlier, can be subclassified as appositives and adverbials. It seems reasonable to assume that appositives are generated as sisters of the NPs they are coindexed with, in which case appositives of verb-complements would be just as much daughters of VP as the verb-complements themselves, while appositives of subjects would not be.[6]

Adverbials, however, present a problem. No doubt there are clausal adverbials in Sanskrit, just as in English.[7] But it seems equally reasonable to posit the existence of VP-adverbials, and VP-adverbials can be reasonably assumed to be included within VP. The problem lies in the delimitation between clausal adverbials and VP-adverbials. Indeed, much of the general discussion of this issue in the literature indicates that, cross-linguistically, the same phonological string may be a clausal adverbial in one context and a VP-adverbial in another. Or even in the same context: The ambiguity of some strings, such as those in (52) - (53), results form scopal ambiguities in adverbials. (The (a) interpretations result from reading the adverbial with clausal scope, the (b) interpretations from its taking VP scope.) Examples such as those in (54) - (56) suggest that extraposed direct objects in Vedic can occasionally be separated from the verb by constituents which might plausibly be labeled adverbials, which if the generalization stated above is true, should probably therefore be interpreted as VP-adverbials rather than as clausal adverbials.[8] It is, however, not obvious that this would make a great deal of difference.[9]

(52) Hilary walked under the trees.
(52a) Hilary took a walk in the space under the trees (= the wood).
(52b) Hilary walked into the space under the trees (from out in the open).
(53) Every variant will not be included in this definition.
(53a) Some variants will be excluded.
(53b) Every variant will be excluded.

(54) mádhvaḥ punānắḥ kavíbhiḥ pavítraiḥ dyúbhiḥ
GEN NOMpl. INSTpl. INSTpl. INSTpl.
'mead' 'purified' 'skillful' 'purification' 'day'
hinvanti aktúbhiḥ dhánutrīḥ (RV 3.31.16)
V 3pl.pres. INSTpl ACCpl.
'impel' 'night' 'fast-flowing'
'Purified by the skillful purifications of mead, through days and nights they impel the fast-flowing (rivers).'

(55) vr̥jánena vr̥jinán sám-pipeṣa māyā́bhiḥ dásyūn
INST.Sg. ACC.Pl. V 3sg.perf. INST.Pl. ACC.Pl.
'embrace' 'wicked' 'crush' 'wondrous arts'
abhíbhūti-ojāḥ (RV 3.34.6)
NOM
'surpassing prowess'
'Having surpassing prowess, he crushed the wicked Dasyus with his embrace by means of wondrous arts.'

(56) tébhiḥ etám sajóṣāḥ vāvaśānáḥ agnéḥ piba
INSTpl. ACCsg NOMpl. NOMsg. GENsg. V 2sg.impv.
'those' 'this' 'agreeing' 'eager' 'fire' 'drink'
jihváyā sómam indra (RV 3.35.9)
INSTsg. ACCsg. VOC
'tongue'
'Agreeing with these, eagerly drink this Soma with the tongue of fire, O Indra.'

Apart from 'sentential particles', which behave syntactically like Wackernagel's-Law clitics, thus never participate in extraposition, and are therefore irrelevant to our discussion, the one constituent least likely to be included within VP is the subject NP. Therefore, a strong interpretation of the MEC would predict that XVOS clauses should be possible in Vedic, but XVSO clauses impossible.[10]

Now, I have so far been unable to find any examples at all of the extraposition of more than one argument in any of the Vedic-Prose texts I have looked at. At present, therefore, Vedic Prose offers no evidence about the possibility of XVOS vs. XVSO in Vedic grammar. In the Rig-Veda, however, the situation is different: XVOS is rare, as the general rarity of two-argument extraposition would lead us to expect. Still, many clauses with this structure can be found, if one looks hard enough; cf. (56-59).

(57) bṛhadúkṣaḥ marútaḥ viśvávedasaḥ prá-vepayanti párvatān
NOM NOM NOM V 3pl.pres. ACC
'richly-raining' 'owning all treasure''shake' 'mountains'
ádābhyāḥ (RV 3.26.4)
NOM
'invulnerable'
'The invulnerable richly-raining Maruts, owning all treasure, shake the mountains.'

(58) uchántīḥ adyá citayanta bhojā́n rādhodéyāya
NOM Adv. V 3pl.inj. ACC DAT
'shining' 'today' 'incite' 'generous' 'giving of gifts'
uṣásaḥ maghónīḥ (RV 4.51.3)
NOM NOM
'dawns' 'generous'
'Today may the shining dawns incite the generous ones to the giving of gifts.'

(59) tvắm agne ṛtāyávaḥ sám-īdhire pratnám pratnắsaḥ
ACC VOC NOM V 3pl.perf. ACC NOM
'you' 'pure' 'ignite' 'primeval''primeval'
ūtáye sahaskṛta (RV 5.8.1)
DAT VOC
'furtherance' 'born of strength'
'The pure primeval ones ignited you, the primeval, O Agni, strength-born, for furtherance.'

However, XVSO clauses, while exceedingly rare (about 1 or 2 per maṇḍala, or about $^1/_{10}$% of all transitive clauses), can likewise be found in the Rig-Veda; cf. (60-62). This suggests that the MEC should not be understood as a strict prohibition but as a strong tendency in the syntax of Vedic Sanskrit.

(60) índraḥ nṛ́bhiḥ ajanat dídyānaḥ sākám sū́ryam uṣásam
NOM INST V 3sg.impf.NOM Adv. ACC ACC
'heroes' 'beget' 'shining' 'together' 'sun' 'dawn'
gātúm agním (RV 3.31.15)
ACC ACC
'way' 'fire'
'Indra, shining with the heroes, begot — together — the sun, the dawn, the way, the fire.'

(61) utá sma asya panayanti jánāḥ jū́tím (RV 4.38.9)
& PTCL GEN(cl.) V 3pl.pres NOM ACC
'his' 'praise' 'people' 'zeal'
'And the people praise his zeal.'

(62) kā́rám ná víśve ahvanta devā́ḥ bhā́ram índrāya
ACC Adv. NOM V 3pl.impf. NOM ACC DAT
'paean' 'as' 'all' 'cry' 'gods' 'praise'
(RV 5.29.8)
'All the gods cried praise to Indra as a paean.'

It might be objected that the exceeding rarity of XVSO clauses is merely an artifact of the rarity of multiple extraposition, especially of two arguments, and therefore that positing the MEC is a violation of Occam's Razor. However, this hypothesis would fail to account for the fact that while both XVOS and XVSO clauses occur in the Rig-Veda, the former are roughly ten times as common as the latter. A hypothesis that denies the relevance of the distinction between VP and Subject NP and seeks to account for relative frequency of extraposition of various combinations of constituents solely on the basis of the 'extraposability' of each individual constituent would predict that XVOS and XVSO clauses should occur with roughly equal frequency. This, however, is manifestly not the case.

We are therefore left with the following questions:

(i) Given that extraposition in Vedic appears to be sensitive to the presence of a VP node, its linear boundaries and dominance relations, what does this tell us about the nature of extraposition in Vedic?

(ii) How can we account for the extremely few XVSO clauses that do occur in the Rig-Veda?

I shall tackle these questions in the next section.

6. Theoretical issues

As I hope to have demonstrated, in Vedic, apart from sentential particles etc., any single constituent can be 'extraposed', i.e., located to the right of an unfronted verb. The only constraint that seems to operate consists of a strong tendency regarding the relative ordering of simultaneously extraposed constituents such that they will respect the boundaries of a particular sub-clausal phrasal constituent, namely VP.

Now, the label 'extraposition' suggests extracting a constituent from a normal, verb-final structure and attaching it to the end. However, the facts discussed and summarized above seem more compatible with a hypothesis that in Vedic, 'extraposition' (the appearance of constituents to the right of an unfronted verb) is merely a reordering of constituents, without any 'movement' or 'gaps'.[11] For instance, the grammar may provide for a VP category dominating a verb and various arguments and adverbials, without constraining their relative order. In which case, some or all of the verb's sisters may appear to the right of the verb, such as the *devắn* of (26), repeated as (63) below; or they may all appear to the left, as in (20) (repeated as (64) below). Likewise, if there are no constraints on the relative order of the VP and the subject, then the subject may appear to the right of the VP, as it does in (64).[12]

(63) evá anéna havíṣā yakṣi devắn (RV 3.17.2)
Adv. INST INST V 2sg.impv. ACC
'so' 'this' 'oblation' 'sacrifice' 'gods'
'So with this oblation sacrifice to the gods.'

(64) evam ṣaṣṭhe ahani kalpate yajñaḥ (AB 6.31.1)
Adv. LOC LOC V 3sg.pres. NOM
'thus"sixth' 'day' 'succeed' 'sacrifice'
'Thus on the sixth day the sacrifice succeeds.'

Furthermore, if we grant that the grammar may allow for the complete dissociation or 'liberation'[13] of NPs, so that nouns and their modifiers, both adjectival and genitival, may be freely separated from each other and sprinkled hither and yon about the clause as often occurs even in Vedic prose, then partial extraposition as discussed in section 2 above can be accounted for in the same way. Thus, in (35) (reproduced as (65) below), the verb *upa-yāmi* govers a direct-object NP *prathiṣṭham śarma* . But if that NP is liberated, then the verb actually has as distinct sisters the adjective *prathiṣṭham* and the noun *śarma*, either of which may appear on either side of the verb, independently of the other. And multiple extraposition likewise might result from the simultaneous 'reordering' of constituents within VP and of VP with its sisters, as in (58) (reproduced as (66) below), in which the VP is 'reordered' with regard to the subject and the verb is 'reordered' with regard to its object.

(65) mitrám práthiṣṭham úpa-yāmi śárma (RV 10.87.1)
ACC ACC V 1sg.pres. ACC
'friend''principal' 'approach' 'protection'
'I go to (the) friend for principal protection.'

(66) uchántīḥ adyá citayanta bhojắn rādhodéyāya
NOM Adv. V 3pl.inj. ACC DAT
'shining' 'today' 'incite' 'generous' 'giving of gifts'
uṣásaḥ maghónīḥ (RV 4.51.3)
NOM NOM
'dawns' 'generous'
'Today may the shining dawns incite the generous ones to the giving of gifts.'

However, the MEC implies that it is extremely difficult for the grammar of Vedic to treat a verb-complement as if it were an immediate daughter of S, sister to the subject. Perhaps not impossible, as suggested by (60) - (62) above, but very difficult. As noted earlier, this constraint seems to be much stronger than the preference for verb-final clauses and any other considerations militating against argument extraposition. Therefore, it seems extremely unlikely that the VP constituent in Vedic Sanskrit can be dissociated or 'liberated'.[13] Defining VP in Vedic as a 'liberatable' constituent in Pullum's and Zwicky's terms would allow clauses such as those in (60) - (62) to be generated, but it would allow them to be generated much more commonly than they appear in the corpus, especially if we accept Zwicky's perhaps questionable arguments that the liberation of liberatable categories must be defined as obligatory. If liberation of VP is to account for the violations of the MEC, then in view of their extreme rarity, it cannot be obligatory. In fact, it would have to be very stringently constrained somehow.[14] At this time, there seems to be no means within the GPSG framework of formulating such constraints.

Pollard (1984:10-16, 215-217) offers a theory of 'Head-Wrapping', whereby one constituent may be 'wrapped' around another, or two constituents may be 'wrapped' around each other. His theory suggests the possibility that strings such as (60) - (62) result from the mutual 'wrapping' of the VP and the subject NP. However, the formalism of his theory clearly predicts that the lexical head of the 'wrapping' constituent must be adjacent to the 'wrapped' constituent, or in the case of mutual wrapping that the lexical heads of the two mutually 'wrapping' constituents must be adjacent to each other. This is, by my judgment, not the case in (60).[15]

Within a transformational framework like GB, it might be possible to move the object out of VP and adjoin it to the right of S, in which case regular daughters of S, such as the subject, might intervene between it and the verb. Remember that at the beginning of this section I assumed that 'extraposition' in Vedic does not involve movement. Object-adjunction would then be an exception to the general case, accounting for rare exceptions to the MEC. Such right-adjunction might be

heavily constrained or, alternatively, defined as an option within the grammar that is rarely availed of.[16]

Another possibility for accounting for the exceptions in (60) - (62) would be to suggest that the verb might be inserted into the midst of the subject NP, so that (60), for instance, would have the structure in (67).

(67) [índraḥ nṝbhiḥ ajanat$_i$ dī̆dyānaḥ sākám]$_{NP}$ [t$_i$ sū̆ryam uṣásam gātúm agním]$_{VP}$

Note that, given the way the MEC has been understood above, the only clear violation thereof would be a clause in which, superficially, all or part of the subject intervenes between verb and object. This may in fact turn out to be an artificial consequence of the way the MEC has been understood up to this point. Inserting the verb into the midst of the subject NP may be just as artificial, if not ad hoc, a method of circumventing the problem.

Furthermore, within orthodox GB, this hypothesis would be very upsetting, since it violates the requirement that movement-traces be *c*-commanded by their antecedents.[17] However, this requirement may likewise run into trouble in the attempt to account for OSV clauses like those in (68) - (69), in which from context it seems less likely that the object has been 'scrambled' out of the VP than that the subject has been inserted into something like a pre-verbal 'focus' position.[18] Such an analysis would make it impossible for the subject to *c*-command its own trace; yet for clauses like those in (68) - (69) it seems, pretheoretically, the most reasonable and illuminating description.[19]

(68) bráhma-mukhāḥ evá tát prajāḥ yájamānaḥ srjate
ACCpl. PTCL COMP ACCpl. NOMsg. V 3sg.pres.
'beginning with B.' 'offspring''sacrificer''create'
(TS 5.2.7.1)
'So the sacrificer creates offspring beginning with Brahman.'

(69) yatra asya puruṣasya mṛtasya agnim vāk api-eti
COMP GEN(cl.) GEN GEN ACC NOMV 3sg.pres.
'when''this' 'person' 'dead' 'fire' 'speech' 'go into'
(BAU 3.2.13)
'When of this dead person the speech goes into the fire ...'

Going back to examples like (60), though, let us note that if, as seems reasonable, we assume that NPs in Vedic are customarily liberated, then as mentioned in note 15 the words *índraḥ*, *nṝbhiḥ*, *dī̆dyānaḥ*, and *sākám* are each severally immediate daughters of S, and rather than positing a structure like that in (67) it would be necessary only to extract the verb from VP and make it an immediate daughter of S and sister to the subject. Note that, under this hypothesis, it is the verb that is being 'moved', in which case by the definition being used in this paper, the resulting strings do not constitute examples of 'extraposition' at all. This hypothesis might be able to account for strings such as (60), except that, again, it would suggest that they would be much easier to generate than they seem to be.

Note, though, that the verb is a single word or lexical item, and therefore eligible for topicalization; cf. my other contribution to this volume, as well as the examples in (5) - (8) above. It would seem that the grammar might allow the verb to be extracted from VP without being topicalized, but that there would rarely be any reason to take advantage of this option. This circumstance might be sufficient to account for the rarity of clauses like (60).

7. Summary and conclusion

In this paper, I have surveyed the possibilities of 'extraposition' (defined for the purposes of this paper as the location of material after a non-fronted verb) in the corpus of Vedic Sanskrit, both prose and verse. I have found that, with the exception of elements controlled by Wackernagel's Law or similar generalizations, any single element is 'extraposable', whether a whole phrase or any part thereof. Further, I have discussed the possibility of 'multiple extraposition', in which two or more not-directly-related constituents have been extraposed. While rare, multiple extraposition does occur occasionally in both prose and verse. However, the details of the ordering of extraposed constituents strongly suggests that extraposition in Vedic respects the boundaries of a VP constituent, implying (1) that such a constituent actually exists in Vedic constituent structure and (2) that 'extraposition' in Vedic normally does not involve actual extraction and adjunction, but merely reordering of constituents within their mothers. It is suggested that the very few cases that apparently violate the proposed Multiple Extraposition Constraint may be accounted for by other means, and may in fact not be real violations at all.

NOTES

*I would like to thank Madhav Deshpande, Brendan Gillon, Hans Henrich Hock, Stephanie Jamison, Brian Joseph, and Jared Klein for comments and criticisms. All errors of fact or interpretation are, of course, my own.

In the Sanskrit examples, all external sandhi is undone and all words are presented in 'pre-pausal' form; verbal prefixes are separated from verb-roots by hyphens even when not separated syntactically, and are likewise themselves presented in 'pre-pausal' form, with devoicing of final stops. In the glosses, the following abbreviations are used:

m., f., n. = masculine, feminine, neuter gender
sg., du., pl. = singular, dual, plural number
NOM, ACC, INST, DAT, ABL, GEN, LOC, VOC = nominative, accusative, instrumental, dative, ablative, genitive, locative, vocative case
Obl. = oblique
1, 2, 3 = 1st, 2nd, 3rd person
pres., impf., perf., aor., fut. = present, imperfect, perfect, aorist, future tenses
impr., inj., opt., subj. = imperative, injunctive, optative, subjunctive moods
mid. — middle voice (indicated only when necessary)
part., inf., abs. = participle, infinitive, absolutive non-finite verb forms
desid. = desiderative

Adp. = adposition (preposition or postposition)
Adv. = adverb
Pvb. = preverb (verbal prefix)
PTCL = particle
cl. = clitic pronoun
Rel. = relative pronominal
COMP = sentential complementizer

[1]Note Verpoorten's (1977:48) remarks on this subject: 'Le verbe peut encore perdre la position finale, non plus parce qu'il est attiré vers l'amont, mais parce que des mots qui devraient le précéder sonts rejetés vers l'aval en épexégèse. Puisque l'insertion du verbe à l'intérieur de la phrase découle en fait de cette proposition, il est préférable d'étudier celle-ci plutôt que celle-là.' Clearly, Verpoorten is of the opinion that, if the verb is neither in clause-initial nor clause-final position, it is probably because something else has 'moved', and therefore the real issue concerns that 'something else', not the verb. This is the attitude I am taking in this paper. I will, however, in a few examples eventually have to address the possibility of the verb having been 'moved' without such 'movement' being immediately obvious.

[2]Delbrück (1878:25) claims that, for ditransitive verbs of motion, it is the accusative of the goal that normally stands nearest the verb, thereby displacing the direct-object accusative. Given the theoretical assumptions discussed later in this paper, this claim, if true, would constitute evidence that these accusative-marked goals are indeed subcategorized by the verbs in question. Note that Verpoorten (1977:79-80), while tending to agree with Delbrück on this score, admits that it is difficult to build a good case for this claim, since the clauses that conform to this presumably 'unmarked order' do not greatly outnumber those that violate it.

[3]Cf. Vater 1978, where similar arguments are made.

[4]In general, such examples can more easily be found in quoted discourse.

[5]Verpoorten (1972:75,80) confirms that object extraposition is slightly more common than subject extraposition in the Aitareya-Brāhmaṇa.

[6]The assumption, that appositives are generated as sisters of their coindexed NPs, may be unwarranted, and may in fact cause some problems. However, I am not going to wrestle with that issue in this paper.

[7]The 'sentential particles', identified throughout this paper by the abbreviation 'PTCL' in the glosses, seem to have the character of clausal adverbials or COMP words. See also my other contribution to this volume.

[8]Note that, in (55), it is the instrumental of means, which might easily be understood as a VP-adverbial, that is interposed between the verb and the extraposed object, not the instrumental of accompaniment.

[9]Andrews (1982) has argued that at least certain kinds of 'clausal adverbials' must be included within VP. However, his arguments, while cogent, do not completely convince me even for English, and I see no way of applying them to Sanskrit.

[10]The 'X' in these schemata is meant to include the clause-initial string, consisting of topicalized words, fronted pronominals, sentential particles, and Wackernagel's-Law clitics. I am trying to exclude from consideration strings in which the verb has been fronted into the clause-initial string, including not only VSO clauses such as (5) - (8) at the beginning of this paper, which are blatant examples of verb-fronting, but clauses such as the one below, in which the verb is not the first word in the clause but, being preceded only by a fronted pronominal, is plausibly still part of the clause-initial string. Cf. Hock 1982a.

tám	ā́-jagāma	súplā sārñjayáḥ	brahmacáryam (ŚB 2.4.4.4)
ACC	V 3sg.perf.	NOM	ACC
'him'	'come'		'study'

'To him came Suplā Sārñjaya for study.'

[11]Note that even within a transformational framework like Chomsky's GB, which allows for the movement and re-positioning of constituents, it is claimed for reasons of subjacency etc. that at least some types of 'extraposition' do not involve movement, but rather that the 'extraposed' constituent is base-generated in its superficial position and coindexed with its more 'canonical' position, which is empty. Cf. Chomsky 1981:80-85.

[12]In the formal syntactic theory I am working with, the fact that argument extraposition is a minority phenomenon even in the Rig-Veda cannot plausibly be attributed to a hard and fast constraint on linear ordering, since such a constraint would have the effect of outlawing argument extraposition entirely. Rather, it seems more reasonable to suppose that the preponderance of SOV order over SVO or OVS in Vedic mantras is due to a general, metagrammatical preference for verb-final clause structures, which would nevertheless leave the alternative options available if they should be desired for reasons of prosody, emphasis, interclausal parallelism, etc. Given the much more straightforward, pedantic style of typical Brāhmaṇa prose, such considerations would be expected to operate all the more strongly toward the avoidance of argument extraposition in that body of literature, resulting in the extreme rarity of such structures as those in (20) - (21).

[13]'Liberation' is a mechanism proposed within GPSG in Pullum 1982 and subsequently revised in Zwicky 1986. Briefly, given a grammar which licenses the dominace relations described in rules (a) and (b) below, if B is defined by the grammar as a 'liberatable' constituent, then through Liberation the grammar would also license the dominance relations described in rule (c). Thus, the categories C_1, C_2, and C_3 would be allowed to mingle with X, Y, and Z as sisters, although from the semantic point of view, they may still make up a distinct constituent B which in turn is dominated by A.

(a) A → X, B, Y, Z
(b) B → C_1, C_2, C_3
(c) A → X, C_1, C_2, C_3, Y, Z

[14]Furthermore, such violations are so rare that it is probably impossible to discover any characteristics that are common to all of them, that distinguish them from all other clauses, and in terms of which such constraints might be formulated.

[15]Although as mentioned above, the subject NP *nṛ́bhiḥ sākám dī́dyānaḥ índraḥ* may very likely have been 'liberated' in order to produce the observed order of these four words. But this would merely muddy the issue of which word is the lexical head of the subject NP, and therefore would probably provide no support at all for Pollard's hypothesis.

[16]As remarked in note 14, however, it is at present very difficult, if not impossible, to define what the nature of the constraints might be.

[17]Cf. my other paper in this volume for elaboration of the *c*-command requirement in GB.

[18]See Horvath, 1981, Farkas 1986 for a discussion of a similar hypothesis for Hungarian.

[19]Note that (68) - (69), to which I have been comparing (60), are from the Vedic Prose corpus, in which, as far as I know, XVSO clauses like (60) do not occur. The comparison, therefore, may be not be legitimate.

On the syntax of Sanskrit gerund constructions: A functional approach*

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The Sanskrit (past) gerund in *-tvā́(ya)/-tvī́* and *-ī́(t)ya/-ī́(t)yā* is an invariable, non-finite verb category that is chiefly used as the verb of a coreferentially constrained reduced clause, dependent on another clause (or verb phrase), and expressing a preceding action or resultative state (with possible causal and instrumental implicatures). Morphosyntactically it could be defined as a 'verbal adverb' (Söhnen 1985), although it has wider syntactic functions than other 'verbal adverbs' (including the present gerund in *-am*, the grammarians' *ṇamul*). The question is: By what exact parameters are different functions or readings of gerundial clauses structurally demarcated, and to what extent are they derivable from some given invariable syntactico-semantic features of the gerund?

It was clear already to Speijer (1886:296-7) that gerundial clauses, though syntactically subordinate or dependent, may often have readings which correspond to (short) coordinate phrases rather than to subordinate clauses or adverbial phrases. This he tried to explain on a syncretistic basis, proposing that the Sanskrit gerund is historically and synchronically half-way between an infinitive of the aorist and an indeclinable non-attributive participle[1] of the past.[2] (1886: 347 and 1896:68.)

But neither the etymology of the gerund, nor its secondary affiliation with the participles can explain why it behaves quite differently from other non-finite formations in regard to its integratability in the scope of the mood, absolute tense, and other operators of the superordinate clause or phrase. Although this does not necessarily show in the purely formal structure, it has great impact on the semantic relation of the gerundial clause to the superordinate unit: When the gerundial clause is modally and operationally dependent on the superordinate clause (by implicitly sharing the mood, tense, and other operators of the latter), the gerundial clause gets an additive-sequential ('coordinate-like') reading (≈ 'S1 and [then] S2'), whereas when it is modally and operationally independent of the superordinate clause (by not sharing the mood and operators of the latter), it gets a temporally/circumstantially restrictive or supplementive ('subordinate-like') reading (≈ 'after having V-ed, upon/by V-ing').

Thus, in the examples (1a-d), we would have to assume that the mood and absolute tense of the main clause carries implicitly over into the gerundial clause,

which then comes to correspond quite closely to a coordinate finite sequenced clause, sharing the subject (or topical agent), mood, and tense of its conjunct(s):

(1) (a) dattvāyāsmabhyaṁ draviṇeha bhadraṁ pra mā brūtād dhavirdā devatābhyaḥ (KS 5.3)
'Give us wealth here (and what is) good, **and then** announce me favorably to the gods, O bringer of oblations!'
(≠ 'After giving ... / When you have given ...')

Cf.: dhattād asmábhyaṁ dráviṇehá bhadráṁ prá mā brūtād bhāgadáṁ devátāsu (MS 1.4.1)
'Confer on us ... (and) ...'
dattó [= datta ú] asmábhyaṁ dráviṇeha bhadráṁ rayiṁ ca naḥ sárvavīraṁ dadhāta (AV 18.3.14cd)
dádhata no dráviṇaṁ yácca bhadráṁ rayiṁ ca naḥ sárvavīraṁ víyacchata (MS 1.10.3)

(b) yadā́ na upaneṣyáse 'tha te śíras chittvā́nyátrāpaní dhāsyāvaḥ (ŚB 14.1.1.23)
'When thou wilt have received us as thy pupils, we shall cut off thy head and [then] put it aside elsewhere.' (Eggeling)
(≠ '[after/while] cutting off thy head, we shall put it elsewhere')

(c) vijñānaṁ brahma ced veda tasmāc cen na pramādyati śarīre pāpmano hitvā sarvān kāmān samaśnute (TaittU 2.5.1)
'If one knows Brahman as understanding and one does not swerve from it, he leaves his sins in the body and attains all desires.' (Radhakrishnan)

(d) prabuddhasya asya gatvā tvaṁ rudihi svapituḥ puraḥ (Kath.11.59ab)
'When your father has awakened, go and cry before him!'
(≠ 'cry after going')

It is true that in literary style we can paraphrase or translate the gerundial clause in (1a) by a 'participial' or adverbial non-finite clause ('giving/having given'), but note that there is nothing 'literary' or 'stylistically marked' about expressions like (1a-d) in Vedic and post-Vedic Sanskrit. In other words, gerundial clauses are less constrained in their discourse functions than other (preterital) adverbial or non-attributive non-finite clauses (in Sanskrit as well as most other Indo-European languages).

Less often, and mainly only in post-Vedic Sanskrit, we find that also operators like negation and question may have scope over the gerundial clause, e.g. (1e-g):

(1) (e) na kālo daṇḍam udyamya śiras kṛntati kasyacit | kālasya balam etāvad viparītārthadarśanam (MBh 2.72.11)
'Time does not raise the stick **and** cut off anybody's head; the strength of time is just its showing of the opposite thing.'
(≠ 'After raising a stick time does not cut off anybody's head', ?'Time does not cut off anybody's head having raised a stick.')

(f) prajñāprāsādam āruhya aśocyāñ chocato janān | jagatīsthān ivādristho mandabuddhir na cekṣate (MBh 12.530 (ed. Calcutta < Böhtlingk, Indische Sprüche II:4212))
'A man of mean intelligence does not rise to the platform of wisdom **and** see that people grieve for what is not to be grieved, just like a man standing on a hill does not (see) the ones standing on the earth (below).'
(≠ 'Having risen/After rising to the platform of wisdom a man of mean intelligence does not see ...')
(The other editions have a 'regularized' reading, which does not imply that the gerundial clause is elliptically in the scope of the negated main clause: Ed. Poona has the simpler reading prajñāprāsādam āruhya na śocyāñ śocato janān | jagatīsthān ivādristho mandabuddhīn avekṣate (12.17.19); cf. Dhammapada 28.)

(g) trinetraṁ kas tyaktvā dhanalavamadāndhaṁ praṇamati (Nītiśataka (Lith. Ausg. 1.3.97 < Böhtlingk, Ind. Spr. II: 3362, p. 234))
'Who abandons the Three-Eyed one **and** bows before someone blinded by the intoxication of a trifling fortune?'
(≠ 'Who having abandoned/abandoning ... bows...?)

To the extent that the gerundial clauses in examples (1e-g) are in the domain of the operators of the main clause, it would be impossible to render them by non-finite or subordinate constructions in any style of English or most (if not all) European languages. Also in Sanskrit it seems that only (past) gerundial, and not e.g. non-attributive or absolute participial clauses allow this sort of operational dependence.

This additive-sequential function of the gerundial clause contrasts most conspicuously with its function as a temporally or circumstantially restrictive element of the superordinate clause or phrase, in which case it corresponds closely to a subordinate clause or adverbial phrase:

(2) (a) brāhmaṇébhya ṛṣabháṁ dattvā varīyaḥ kṛṇute mánaḥ (AV 9.4.19)
'Having given/By giving a bull to the Brahmans, one makes one's mind wider.'
(≠ 'One gives a bull to the Brahmans and makes one's mind wider.')

(b) na devā daṇḍam ādāya rakṣanti paśupālavat | yaṁ tu rakṣitum icchanti buddhyā saṁvibhajanti tam (MBh.5.1222 (ed. Calcutta; cf. ed. Poona 5.35.33))
'The gods do not protect with a stick (lit. 'having taken a stick') like shepherds; whom they wish to protect, him they endow with intelligence.'
(≠ 'The gods do not take a stick and protect.')

The basic functional difference here is that the gerundial clause cannot be omitted without changing the propositional content (truth conditions) of the superordinate clause: (2a) ≠ 'one makes one's mind wider'; (2b) ≠ 'the gods do not protect'. Formally the difference is that in this function the gerundial clause can be incorporated within the verb phrase, as in *tắni bhrātar ánu vaḥ kṛtvy émasi* (RV 1.161.3d) 'having done those things we shall come after you, brother', lit. 'those things, brother, after you, having done, we shall come'. Moreover, it may be controlled by some other constituent than the grammatical subject or topical agent of the superordinate clause, e.g. an implicit accusative, genitive, or dative experiencer(-possessor) as in (2c) and (2d), or it may, rarely, have an independent subject (cf. Gonda 1975, Söhnen 1985):

(2) (c) jñātvā devaṁ sarvapāśāpahāniḥ kṣīṇaiḥ kleśair
janmamṛtyuprahāṇiḥ | tasyābhidhyānāt tṛtīyaṁ dehabhede
viśvaiśvaryaṁ kevala āptakāmaḥ (ŚvU 1.11)
'By [one's] knowing God there is a falling off of all [one's] fetters; when the sufferings are destroyed, there is cessation of birth and death. By meditating on him, there is the third state; on the dissolution of the body, universal lordship; being alone, his desire is fulfilled.'

(d) smṛtvā smṛtvā yāti duḥkhaṁ navatvam (Svapn. 4.6b)
'On constantly remembering, one's grief grows anew.'

A restrictive gerundial clause may also function as a manner adverbial or optional manner complement, in which cases the gerund tends to be temporally neutralized, cf. (2e,f):

(2) (e) athavā maṇḍūkāgatayo 'dhikārāḥ. | yathā maṇḍūkā
utplutyotplutya gacchanti tadvad adhikārāḥ
(Mbhṣy 1.1.3 and passim)
≈ 'Or, the heading rules may be said to have the motion of frogs. Just like frogs move by jumping and jumping (from one place to the next), in the same way the heading rules (move).'
(Cf. Speijer 1886:299.)

(f) vikramārko nītim ullaṅghya rājyaṁ na karoti
(VikrC 18.0 (Southern recension, ed. Edgerton, p. 141))
'Vikramārka does not rule his kingdom transgressing
(≠ having transgressed/while transgressing) rules of ethics.'

As a restrictive adverbial element, the gerundial clause may also be embedded in a non-finite phrase with nominal function, cf. (2g):

(2) (g) kanyādānaṁ kanyām alaṁkṛtya brāhmo vivāhaḥ
(KauṭAŚ 3.2.2)
'Giving of the girl after adorning her is the Brahman form of marriage.'

On the other hand, many gerundial clauses are neither additive-sequential nor (emphatically) propositionally restrictive. To that extent they are not to be paraphrased or rendered by either subordinate or coordinate clauses. Thus compare

(1) and (2) with (3), which corresponds best to a participial or non-finite supplementive clause in English:

(3) ácyā jā́nu dakṣiṇató niṣádyemā́ṁ yajñám abhí gṛṇīta víśve
(RV 10.15.6ab)
'Bending your knees and sitting down to the south, (then) greet you all this sacrifice welcome!'
(≠ 'Bend your knees, sit down and greet';
≠ 'After bending your knees and sitting down, greet')

What is conspicuous about such propositionally weakly restrictive or 'supplementive' gerundial clauses is that they present pragmatically backgrounded information. This 'backgrounded', modally unspecified or unmarked reading of the gerundial clause is most prominent in the oldest documents and is a natural consequence of the lack of modal inflection of non-finite formations in general. (For a semantic explanation of this phenomenon in connection with English detached participles, see Thompson 1983; cf. also Fox 1983 for an analysis of the backgrounding function of the Greek non-attributive participles.)

In fact, this may be the original, unmarked function of the gerundial clause, since the restrictive reading would come naturally with contrastive emphasis or temporal/causal/instrumental implicatures, whereas the additive-sequential reading implies merely the incorporation of the gerundial clause within the domain of the modal and other operators of the main clause.

Using the formalism of the theory of clause linkage of Role and Reference Grammar (Olson 1981, Foley & Van Valin 1984, Van Valin 1984) we could say that in the cases (2) - (3) the gerundial clause is embedded as a peripheral circumstantial element (argument) of the main clause, while in (1) it is not. Note that 'embedding' is here defined non-transformationally, meaning 'functioning as an argument or (constituent) part of'. Moreover, 'embedding' and 'dependence' are treated as distinct parameters. A reduced or full clause may be dependent on another clause for completion or for some grammatical element or operator, but it need not be embedded as a constituent part of the clause it is dependent on. This provides an intermediate type of connection, called 'cosubordination' (Olson 1981:205-6). It may be noticed that in European languages 'cosubordination' is typically represented by elliptic finite coordinate clauses, which translate gerundial clauses like (1). 'Subordination' then stands for constructions where there is both dependence and embedding (cf. (2) and (3)) and 'coordination' for constructions where there is neither embedding nor dependence.

Alternatively, we could differentiate various implications of subordination or dependence: In (1) subordination (or dependence) signals identity (and hence possible ellipsis) of not only subject (or semantic agent), but also mood, tense, negation, and question, while in (2) and (3), it signals incorporation of one clause as a coreferentially constrained temporal/circumstantial qualification of another clause or phrase. (Cf. Haiman & Thompson 1984 for an analysis of the various formal implications of subordination.) This analysis is reminiscent of

Halliday's (1981; 1985:192 ff.) treatment of complex structures in terms of parataxis (cf. translations of (1)), hypotaxis (1), and rankshift ((2) and (3)).

A different, but partly supplementive analysis of this functional differentiation has been suggested by Jeffers & Kantor (1984), who distinguish between (i) presupposed, (ii) logically presumed, and (iii) non-presupposed gerundial clauses. According to this analysis the gerundial clauses in (2) and (3) would be presupposed, the ones in (1a) and perhaps (1b) non-presupposed, but logically presumed, and the ones in (1c-g) neither presupposed nor presumed, but 'asserted'. This would assign to all these gerundial clauses identical syntactic but different presuppositional structures.

But note that unless contextually conditioned, presuppositions and presumptions are secondary phenomena that follow from propositional restrictiveness or pragmatic backgrounding. (Cf. Andersson 1973, where restrictive and non-restrictive temporal clauses are differentiated according to how they respond to the negation test.) The composite and partly secondary nature of presuppositionality is quite evident when we consider that the gerundial clauses in (2) are not contextually given or presumed in any way, but yet they would respond to the negation test as if presupposed ('one does not make his mind wider having given a bull [but having drunk a sip of Soma]').

In other words, presupposed clauses are either presupposed due to their syntactico-semantic function as restrictive (peripheral) arguments or due to their having been given or implied in the immediate context. In the latter case they are still propositionally restrictive, but topicalized and temporally independent of the main clause. (Cf. sentences like ... *brahmajāyắm púnar daduḥ || punardắya brahmajāyắm ... urugāyám úpāsate* (RV 10.109.6-7) 'they [= the kings] should give back the brahman's wife. Having given back the brahman's wife ... they worship the strider.') Therefore, presuppositionality explains only one kind of restrictive gerundial clauses. On the other hand, it is clear that the additive-sequential reading would be blocked by contextual presuppositions.

Matters are somewhat complicated by the fact that some gerundial clauses may be interpreted in different ways with little effect as to the ultimate understanding of the message. This is actually so in examples (1a) and (1e), and may be further exemplified by (4a):

(4) (a) (kuta eṣa prāṇo jāyate katham āyāty asmiṁ charīre) ātmānaṁ vā pravibhajya (Ś.: pravibhāgam kṛtvā) katham prātiṣṭhate (Ś.: pratitiṣṭhati) (PrU 3.1)
'(Whence is this life born? How does it come into this body?) And how does it distribute itself **and** establish itself?' (Radhakrishnan)

Or: 'How, **dividing itself**, does it abide?' (Röer). Cf. (3).

Or: 'How does it abide **after** dividing itself?' Cf. (2).

As can be seen from the answer (4b), the gerundial clause has actually been understood as implying a question, although the position of the interrogative after the gerund might have suggested that it really dominates only the main clause.

(4) (b) yathā samrāḍ evādhikṛtān viniyuṅkte etān grāmān etān grāmān adhitiṣṭhasveti evam evaiṣa prāṇaḥ itarān prāṇān pṛthak pṛthag eva saṁnidhatte (PrU 3.4)
'As a sovereign commands his officers, saying, "you superintend such and such villages," even so does this life allot the other vital breaths to their respective places.'
(Radhakrishnan)

Similarly, we could alternatively read and translate (1a) as literally meaning 'when you have given', indirectly implying that the giving is expected or required to take place first. But the point is that the quite early generalization of such originally perhaps indirect speech acts made it virtually likely that any gerundial clause can have two basically different readings, depending on whether it is to be taken to share the main clause mood and operators or not. This again decreased the syntactic and pragmatic constraints under which a gerundial clause may substitute for a coordinate sequenced finite clause. (Cf. the abundant use of the gerund in procedural and narrative discourse in and after the early Vedic period.)

Now, one could argue that this functional ambivalence or alleged syntactic ambiguity of gerundial or analogous clauses (in Sanskrit and many South and East Asian languages) can be resolved on a lexical or mainly pragmatic basis, without assuming differences in the syntactico-semantic relation of the gerundial clause to the superordinate clause. (Cf. Lindholm 1975 and Davison 1981, 1986.) But though there are some lexical constraints on the various readings of gerundial clauses, they are not absolute. The only absolute constraint might be that the so-called additive-sequential reading never occurs when the verb underlying the gerund has stative aspect or when it denotes a mental process. (This explains why only restrictive and supplementive gerundial clauses may be controlled by oblique experiencers or possessors.)

Despite many valuable insights presented in Davison 1981 and 1986, also the wider context and differences in discourse prominence may be only partly decisive in disambiguating gerundial or non-attributive participial clauses: For example the gerundial clauses in (3), which are perhaps backgrounded or pragmatically non-prominent because of their meaning and function in the specific Ṛgvedic context, would have acquired either an additive-sequential (non-presupposed, assertive) or temporally/circumstantially restrictive (presupposed) reading in a ritual context. Such ambiguity can only be solved if we assume that the interpretation and understanding of gerundial clauses is based on a structured system of syntactico-semantic oppositions. According to this system, a peripheral gerundial clause is by its function in a sentence always **either propositionally restrictive** (2) **or not, and if not, either modally and operationally in the extended domain of the main clause** (1) **or not** (3).

A more fundamental **formal** distinction can be drawn between syntactically peripheral and syntactically non-peripheral gerundial clauses. (Subclausal junctures or periphrastic constructions are left out of the discussion, since they belong synchronically to morphology rather than syntax.[3]) All the above gerundial

clauses are syntactically peripheral, in the sense that they do not constitute obligatory or optional complements ('core arguments') of the verb, dependent on its valency. Non-peripheral gerunds would be such as function for example as predicative complements of 'prohibitive' or 'dissuasive' particles like *alam* 'enough; away with' (cf. Pāṇini 3.4.18) or *kim* 'what, why', or as complements of manner or, extremely rarely, purpose, depending on atelic verbs of motion, subsistence, behaving, etc. Hence the implicit subject of a non-peripheral gerundial clause must always be the (semantic) agent of the clause it is embedded in. Another feature of non-peripheral gerunds is that they tend to become temporally neutralized or excluded from the system of relative temporal oppositions. In fact, the gerundial clause in (2e) might be analyzed as an optional non-peripheral complement, inasmuch as it completes the sense of the main verb ('move' ≠ 'move by doing X').

Similar uses of the past (or perfective) gerund as a non-peripheral or peripheral manner adverbial are extremely common in old and modern Dravidian (e.g. Tamil: *ōṭi/naṭantu vantāṉ* 'he came running/walking'), as well as in other South and East Asian languages. (Cf. Ramarao 1973, Masica 1976, Agesthialingom 1979.) It seems to be an areal phenomenon in Indo-Aryan, since this use is not yet found in the earliest sources and is conspicuously common in some texts of Southern origin (e.g. Daśakumāracarita, Vaikhānasasmārtasūtra), which contain other Dravidianisms, such as a more frequent use of absolute gerundial clauses. (Caland 1929:xiii-xiv) An alternative, but less likely theory has been that these uses of the gerund reflect its prehistorical origin as an instrumental verbal adverb. At any rate, these grammaticalized or marginal functions are structurally quite different from the regular and non-grammaticalized functions and cannot be synchronically derived wholly on the basis of the inherent features of the (historical) gerund.

What I have argued so far is that there are certain variable syntactic features of gerundial clauses that cannot be accounted for by etymological or contextual factors, nor by the secondary affiliation of the gerund with the participles. In particular this is so because these features are peculiar only to gerundial and not to other semantically overlapping non-finite clauses, such as non-attributive perfect or past participial clauses. The functional syntactic analysis that has been developed does not entirely remove syntactic and semantic indeterminacy or vagueness in the case of gerundial clauses, but it does demarcate the different syntactico-semantic functions of gerundial clauses in a principled way and it explains why certain variable semantic, pragmatic, and syntactic features of gerundial clauses go together.

Moreover, it explains why not all non-finite formations that are roughly synonymous with the gerund behave in the same way. For example, the past and perfect non-attributive participles would not occur in functions like (1b-g). Also with implicit dependence on non-indicative mood (1a), they are much rarer and stylistically more marked than the gerund. This is hard to attribute to their adjectival construction or any differences in their grammatical or lexical meaning.

These functional constraints are not synchronically determined by the context and must therefore be inherent syntactic features of the formations as such.

On the other hand, these modal and operational constraints may change over time. Even the Sanskrit gerundial clause can paraphrase a modally marked coordinate finite clause only in positive non-interrogative sentences. This makes it hard to use the operational test for checking embedding. If we were to negate (1a) or even (1b), the gerundial clause would become presupposed and restrictive as an embedded clause, since in Vedic Sanskrit, negation cannot extend elliptically to the gerund if the mood is non-indicative. And even in Classical Sanskrit this is rare, cf. (1f).

There seems to be a principle applying to all non-finite formations in Sanskrit and other Indo-European languages which says that potential dependence on the outermost operators of question and negation (cf. 1e-g) presupposes potential dependence on the more inner operators of tense and modality (cf. 1a-d). This can be seen by observing the gradual functional expansion of the gerund in the Indo-Aryan languages and by comparing it with the participles of the classical and modern Indo-European languages. For example, like the Vedic gerund, the Greek and Old Slavonic non-attributive participles may occur with implicit dependence on the mood of the main clause (Ružička 1963). But they may not implicitly share negation with the main clause. In and after the Classical period this happens occasionally with Sanskrit gerundial clauses, and when we go to modern Hindi, the gerundial clause can be implicitly dependent on sentence negation, question, and modality, all at the same time. Cf. (5) from modern Hindi:

(5) (a) use ḍāṁṭkar bolī : ab god se utarkar pāv̆-pāv̆ kyoṁ nahīṁ caltī (Premcand: Godān, p.17)
'She (=Sonā, 12 yrs) said scoldingly (*ḍāṁṭkar*, gerund) to her (= Rūpā, 8 yrs): "Why do you not now get down from (*utarkar*, gerund) (daddy's) lap and walk on your own feet?"' (≠ "Why do you not walk on your own feet, having got down from daddy's lap?")

(b) vah kabhī us ke ūparī vilās-āvaraṇ ko chedkar us ke antaḥkaraṇ tak na pahuṁc sakī thī (Premcand: Godān p.239)
'She had never been able to pierce (*chedkar*, gerund) his superficial amorous playfulness and reach his heart.'

Incidentally, this development (as well as the loosening of the coreferentiality constraint and relative past tense value) has gradually brought the Indo-Aryan gerund typologically more in line with the Dravidian verbal participle, which from the start seems to have been able to form clauses with few constraints on implicit operational dependence. Cf. (6) from an Old Tamil text (Kuṟuntokai), where the participial clause is in the domain of main clause negation:

(6) nilan toṭṭup pukār (vāṉam ēṟār / vilaṅkiru munnīr kālir̲ cellār) (KT 1.30.1)

'He will not dig up (*toṭṭu*, gerund) the earth and enter it.'
(Hart 1979:65)
'He just cannot have dug up and entered the earth.'
(Ramanujan 1971:58)

It is also apparent and understandable that the more constrained a language is in regard to combining finite clauses in a sentence (as e.g. Dravidian and Japanese), the less constrained it may be as regards letting the operators of the finite main clause carry back through any non-finite clause that does not function as a temporally or circumstantially restrictive argument. Hence the inherent and system-specific constraints on modal and operational dependence of non-finite clauses are really the ultimate causes for their diverse discourse functions and syntactic and pragmatic constraints. On the other hand, these constraints are related to more general typological constraints on finiteness in complex sentence formation; cf. Tikkanen 1987a.

In Dravidian and Japanese, with severe constraints on the number of finite clauses in a sentence, clauses sharing the same illocutionary force, modality and tense, and/or subject occur as non-finite without pragmatic or stylistic constraints.[4] When not formally distinguished from restrictive or supplementive non-finite clauses, this leads to double syntactic analysability; cf. Kuno 1973: 20ff.

In most Indo-European languages, where there are (virtually) no constraints on the number and type of modally specified finite clauses in a complex sentence, participial and non-finite adverbial clauses tend to be pragmatically constrained (backgrounded) or restrictive. That is, even when semantically 'coordinate-like', non-finite clauses tend to be modally and operationally unmarked in most Indo-European languages. This situation still obtains in early Vedic Sanskrit, but changes in later Vedic and Classical Sanskrit.

NOTES

*This paper is based on some results of my doctoral dissertation on the syntax, semantics, and development of the Old Indo-Aryan gerund (Tikkanen 1987b). I am grateful to Asko Parpola for having read and commented constructively on the manuscript and to Hans Henrich Hock for challenging discussions and useful observations on topics relating to the gerund.

[1]Editor's note: The term 'non-attributive' participle has been substituted for the author's more elegant, but potentially misleading 'conjunctive' participle. As is well known, the latter term is in South Asian linguistics commonly used for what in this paper is being referred to as 'gerund' and what in other publications has been termed 'absolutive', i.e. an uninflected, quasi-adverbial form of the verb. 'Non-attributive' participles, on the other hand, refer to inflected, adjectival forms of the verb that are used not attributively, but in quasi-clausal function, as in Sanskrit expressions of the type *sa yajñārthe ... chāgam upakrīya ... **gacchan** dhūrtatrayeṇāvalokitaḥ* (Hitopadeśa 43.5-6) 'He, having bought a goat for the purpose of sacrifice ..., (as he was) **going** was noticed by a trio of rogues.'

[2]Söhnen 1985 discusses at length the reasons for not calling the Sanskrit gerund either a 'participle' or a 'gerund', but unfortunately she defines the term 'gerund' in accordance with its quite unique use in English grammar, where it may stand for both a plain action noun and a non-finite verb form (cf. Wasow & Roeper 1972, Thompson 1973, Huddleston 1984:312ff.)

As for the objection against the term 'participle', it should be stressed that in classical Indo-European languages (cf. Chantraine 1953:323), including even Vedic Sanskrit, non-attributive participles are sometimes construed ad sensum rather than strictly adjectivally. Synchronically, the gerund could then just as well be defined as an 'indeclinable non-attributive past participle', especially since the gerund replaced the non-attributive perfect participle, and to some extent, the past non-attributive participle (cf. Delbrück 1888:377). Moreover, although probably instrumental in origin, the forms of the gerund could not be recognized and formed so in Vedic times by any synchronically productive morphological processes, due to the peculiar apophony and prosodic features of the formations (cf. Kuiper 1942, Beekes 1972, Hamp 1986). Also the development of the basically past relative tense, which does not prevent the gerundial clause from having causal and instrumental implicatures, is hard to explain on an etymological basis. Finally, the nominal (or more genuinely 'gerundial') functions of the gerund in instrumental adjuncts or complements are not necessarily reflections of its assumed instrumental origin. Even the construction with *alam* could be historically derived on the basis of the normal function and meaning of the gerund as a relative past non-finite verb forming a coreferentially constrained reduced clause: *alaṁ (te) ruditvā* 'no good (for you) having cried/upon crying!' → 'no good crying!'

[3]In the discussion of this paper, Hans Henrich Hock raised a question about the temporal value of the gerund in subclausal junctures or periphrastic constructions, suggesting that it may then be substituted by a present participle or present gerund. This was proposed already by Speijer (1886: 298-9), but as I have shown elsewhere (Tikkanen 1984), there is a crucial aspectual distinction between these constructions. E.g. Manu 7.195 *uparudhyārim āsīta* means '[The king] should sit (= persist) having besieged the enemy', i.e., 'The king should keep the enemy **besieged**', which is not the same as *uparundhann āsīta* '[The king] should keep/continue **besieging** the enemy'. Similarly, RV 1.57.4b *yé tvārábhya cárāmasi* '[We] who go (= keep on) having taken hold of you', which is not the same as *ye tvārabhantaś carāmasi* 'who go on taking hold of you'; cf. TS 6.1.11.6 *médhāyātmā́nam ārábhya carati yó dīkṣitó* 'The consecrated person keeps himself prepared for the sacrifice' (≠ 'keeps preparing himself for the sacrifice'). In other words, constructions based on the (past) gerund in connection with a durative or stative 'auxiliary' do not signify continuous actions (as Speijer asserted), but continuous resultative states, which presuppose the previous completion of the action expressed by the gerund. This can only follow from the past relative time reference of the gerund.

[4]Steever (forthcoming) discusses among other things the finiteness parameter in Dravidian from a formal syntactic viewpoint. In fact, the basic difference between the restrictions on finiteness in Dravidian and Indo-Aryan is simply that in Indo-Aryan this restriction is in no way formal, while, according to Steever (ibid.), its formality seems to be crumbling at the edges in modern Dravidian as well.

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AB = Aitareya-Brāhmaṇa
AV = Atharva-Veda
BAU = Bṛhad-Āraṇyaka-Upaniṣad
ChU = Chāndogya-Upaniṣad
JB = Jaiminīya-Brāhmaṇa
KB = Kauṣītaki-Brāhmaṇa
Kath./Kathās. = Kathāsaritsagara
Kap.S = Kapiṣṭhala-Saṁhitā
KauṭAŚ = Kauṭilīyārthaśāstra, ed. Kangle
KS = Kāṭhaka-Saṁhitā, ed. Schroeder
KŚS, Kātyāyana-Śrauta-Sūtra, ed. Ranade.
KT = Kuṟuntokai, ed. Cāminātaiyar
KU = Kaṭha-Upaniṣad
KV = Kāśikāvṛtti (Pracya Bharati Series).
M = Manu/Mānavadharmaśāstra
MB = Mahābhāṣya (for edition, see General References below)
MBh = Mahābhārata
Mbh = Mahābhārata, ed. Poona, ed. Calcutta [< Böhtlingk 1870-73]
Mbhṣy = Mahābhāṣya, ed. Kielhorn
MS = Maitrāyaṇī-Saṁhitā, ed. Schroeder
Mṛcch. = Mṛcchakaṭika
Mudr. = Mudrārākṣasa
Pañc. = Pañcatantra
Pat. = Patañjali's Mahābhāṣya
PrU = Praśna-Upaniṣad, ed. & comm. of Śaṅkarācārya
R = Rāmāyaṇa
RV = Rig-Veda
ŚB = Śatapatha-Brāhmaṇa
ṢB = Ṣaḍviṁśa-Brāhmaṇa
Svapn. = Svapnavāsavadattā, ed. Devdhar
ŚvU = Śvetāśvatara-Upaniṣad, ed. Radhakrishnan
TA = Taittirīya-Āraṇyaka
TS = Taittirīya-Saṁhitā
Vet. = Vetālapañcaviṁśati, ed. Emenau
Vetikā = Vetālapañcaviṁśatikā, ed. Uhle
Vikr. = Vikramorvaśīya
VS = Vājasaneyi-Saṁhitā, ed. Weber
TaittU = Taittirīya-Upaniṣad, ed. & transl. Radhakrishnan
VikrC = Vikramacarita = Siṁhāsanadvātriṁśatikā, ed. Edgerton

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A bibliography of writings on Sanskrit syntax

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The following bibliography of writings on Sanskrit syntax has grown out of bibliographically oriented papers which we independently prepared for the Silver Jubilee volume of the Centre for Advanced Study in Sanskrit at Pune University. Noticing a considerable overlap between the fairly extensive bibliographies of these two papers, we decided to combine them, with updates, for inclusion in the present volume, in the hope that the outcome will be useful for scholars interested in Sanskrit syntax.

The guiding principle in this combined undertaking was to provide a maximally broad bibliography. As a consequence, we have included many publications whose major focus is morphology, as long as they address at least some interesting syntactic issues. Similarly, we have included many publications whose major focus is comparative Indo-European linguistics, again, as long as they address at least some interesting aspects of Sanskrit syntax. We have also tried to include a fair sampling of publications concerned with the manner in which the indigenous Indian grammatical tradition has dealt with syntax. Finally, we have tried to include the major treatments of the syntax of Pāli and the Prakrits, as well as of the early Iranian languages. In all of these endeavors, we may not have always been successful; others may disagree with our inclusion of some items and exclusion of others.

The bibliographical information is as complete as we could make it, given our resources. For some items, cited by other authors and often not available to us, the bibliographical references are incomplete. However, we feel that the benefits derived from signaling the existence of these publications outweigh the disadvantages of incomplete bibliographical references.

Finally, we are fully aware that even after combining our efforts, as well as drawing on bibliographies in the publications of other scholars, we are far from being able to produce a complete bibliography. Still, we hope that the bibliography below provides a useful tool for scholars of Sanskrit syntax by presenting in compact, unified form information that is otherwise scattered over a plethora of individual publications and the card catalogues of hundreds of

libraries. We welcome comments by users of this bibliography, especially information regarding missing items or more complete references. We hope to include that information in a future update.

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